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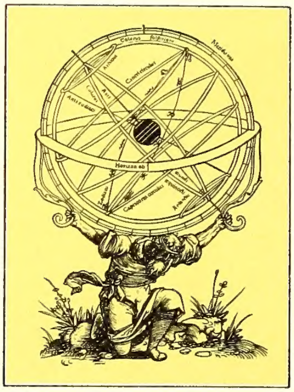

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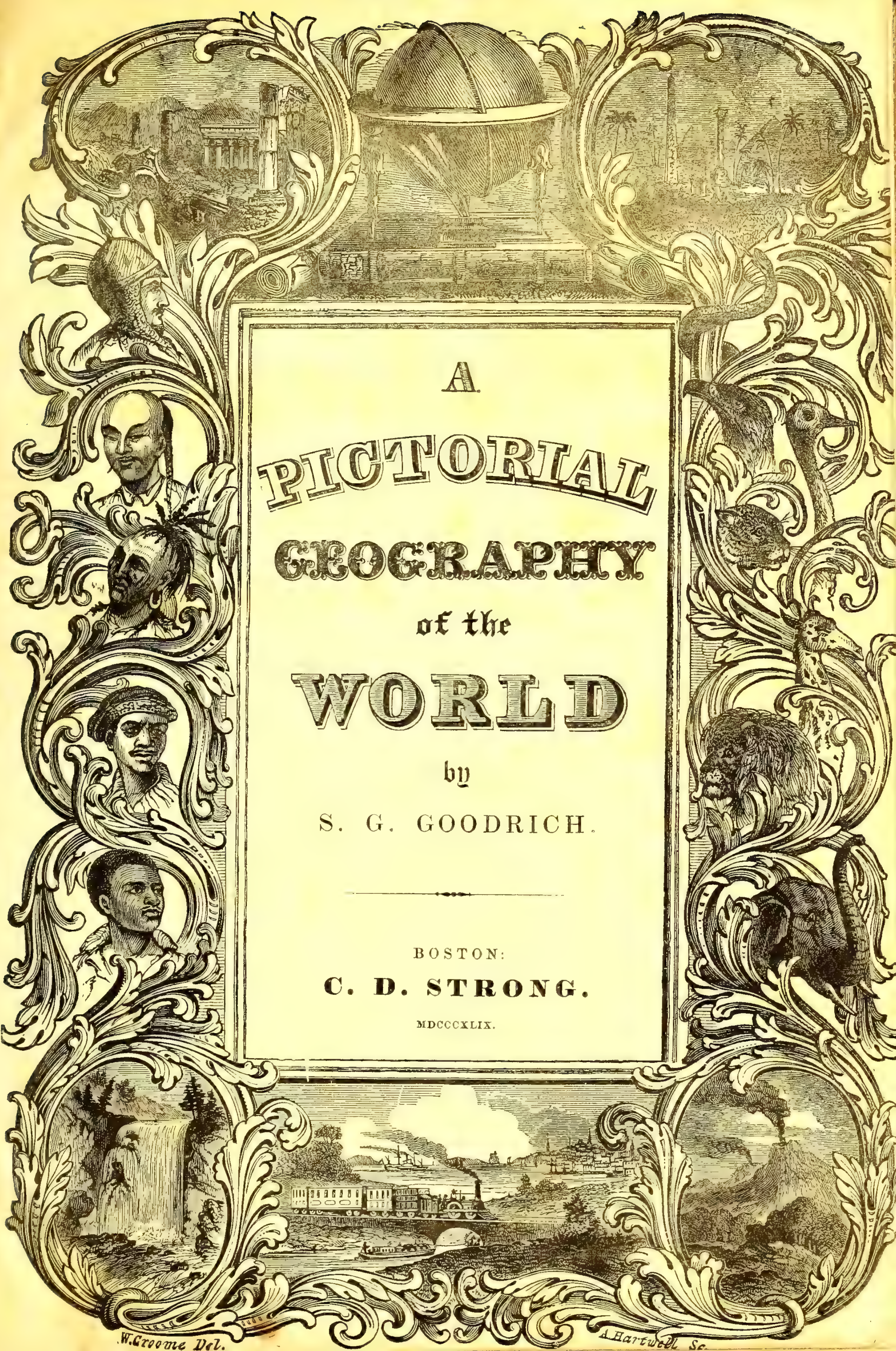
A

PICTORIAL GEOGRAPHY

OF

THE WORLD.

ONE THOUSAND ILLUSTRATIVE ENGRAVINGS.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A PICTORIAL GEOGRAPHY of the WORLD

by

S. G. GOODRICH.

BOSTON:
C. D. STRONG.
MDCCCXLIX.

A

PICTORIAL GEOGRAPHY

OF

THE WORLD,

COMPRISING

A SYSTEM OF UNIVERSAL GEOGRAPHY,

POPULAR AND SCIENTIFIC,

INCLUDING A PHYSICAL, POLITICAL, AND STATISTICAL ACCOUNT OF THE EARTH AND ITS VARIOUS DIVISIONS, WITH NUMEROUS SKETCHES FROM RECENT TRAVELS:

AND ILLUSTRATED BY

MORE THAN ONE THOUSAND ENGRAVINGS,

OF MANNERS, COSTUMES, CURIOSITIES, CITIES, EDIFICES, RUINS, BEASTS, BIRDS, FISHES, REPTILES, TREES, PLANTS, FRUITS, &c.

WITH A COPIOUS INDEX,

ANSWERING THE PURPOSE OF

A GAZETTEER.

By S. G. GOODRICH.

SIXTEENTH EDITION, OF 1000 EACH.

BOSTON:
PUBLISHED BY C. D. STRONG.
M DCCC XLIX.

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HISTORY OF GEOGRAPHICAL DISCOVERY.

The science of Geography is, in its nature, confined nearly within the limits of actual discovery. It has, of course, kept pace with the progress of mankind in surveying the surface of the globe, and recording their observations. The following sketch of geographical discovery is compiled from Murray's Cyclopedia of Geography.

No system of geography can be traced in the sacred writers, and the ancient Hebrews never attempted to form any scientific theory respecting the structure of the earth. The Phœnicians and Carthaginians made themselves acquainted not only with the shores of the Mediterranean, but with the coasts of Europe; and as early as the time of Solomon they sent their ships to the British Islands, which then bore the name of Tin Isles, from the tin obtained there.

The first traces of Greek geography are found among its poets, whose brilliant fancy has spread its lustre over all the regions with which Greece ever held intercourse. Homer took the lead, and his high authority gave to the geography of the Greeks a poetical cast, which they transmitted to the nations whom they taught, and of which the traces are not entirely obliterated.

It is in Homer, that we find the first trace of the widely-prevalent idea, that the earth is a flat circle, begirt on every side by the ocean. This was indeed a natural idea in a region so entirely insular and peninsular, nowhere presenting, like Judea, a vast tract, stretching so far as to give the idea of immeasurable distance. The circular shape was suggested by that of the visible horizon; and, until science demonstrated the globular form of our planet, the very natural opinion prevailed, that the earth was a flat circle, with the vault of heaven above, darkness, and the abode of departed souls, beneath.

Homer, like Hesiod and the ancient poets generally, delights in topographical detail, and scarcely allows a city or natural object to pass without applying to it some characteristic epithet. It was only, however, within a very limited range, that he could give these distinct and animated notices. The Greek islands, beautiful and fertile spots, which seem to have been the first cradle of European civilization, were the central point from which his knowledge emanated. He knew well, and had probably visited, on one side, Peloponnesus, Attica, and the regions immediately adjoining; on the other, the western coast of Asia Minor, and the banks of the beautiful rivers by which it is watered. Perhaps scarcely any other tract on the globe presents within the same compass such a variety of grand and beautiful objects to rouse the imagination. Beyond this circuit, the world of Homer was soon involved in mysterious obscurity. Some grand and distant features, discernible through the gloom, were exaggerated and distorted by ignorance and superstition. Thebes, the mighty capital of Egypt, when that kingdom was in its greatest glory, is celebrated for its hundred gates, and the hosts of warriors which they sent forth to battle. Beyond lay the Ethiopians, deemed the remotest of men, dwelling on the furthest verge of the earth, and to whose distant confines Jupiter repaired to hold an annual festival. In the western part of the same continent the stupendous ridges of Atlas, had excited in Grecian fancy the image of a gigantic deified being, to whom was intrusted the support of the heavens. Even further to the west, the exploits and wanderings of the great Grecian demigod had conveyed a tradition of the strait leading into the ocean, and of the rocks on each side, celebrated under the denomination of the Pillars of Hercules.

On the east, Colchos was distinguished by its early wealth and commerce; it was considered a city on the ocean, with which, therefore, the Black Sea must have been confounded; and being supposed to contain the palace of the Sun, where, during the night, he gave rest to his coursers, and whence in the morning he drove his chariot to its diurnal career, Colchos must have been regarded by Homer as placed on the most eastern verge of the earth. On the north, Rhodope, under the name of the Riphæan Mountains, was considered a chain of indefinite extent, closing in the northern limits of the world. The poet, however, had heard a vague report of the Scythians, under the description of a people subsisting on mare's milk. The vessels which conveyed the Grecian army to Troy were evidently little better than large boats; and all distant voyages, or those in which land was lost sight of, were considered as fraught with the extremest peril. A navigation to Africa or to Sicily took place only through tempest, terminating usually in shipwreck; and a return from these shores was esteemed almost miraculous. In regard to Sicily, indeed, Homer has largely communicated his ideas, having made it the theatre of the woes and wanderings of the hero of the Odyssey. Making every allowance for poetical license, we see evident traces of the terrified and excited state of mind in the navigators who returned from these shores. Monsters of strange form and magnitude, who watched for the destruction of the mariner, and even fed upon his quivering limbs; delusive sirens, who lured but to destroy; imprisonment under the transformed shape of wild beasts; these, probably, are only a highly-colored repetition of the terrific rumors brought by the few, whose bark had been wafted to those yet savage coasts.

The system of geography included in the great historical work of Herodotus is as complete as could be formed from the materials within his reach. It comprises a general summary of all that he could learn respecting the human race, and the regions which they inhabited. His information was obtained not solely or chiefly from books but mostly by traveling, the only mode in which, at that era, geographical knowledge could be effectually collected. He assures us, that he had visited Persia, Assyria, Egypt, Thrace, Scythia, and all the distant regions which he describes. He viewed them, however, only as tracts of territory, the abode of men, and did not attempt to combine them into any system of the earth; nor did he possess, or, at least, apply any of the mathematical or astronomical principles of the Milesian school. He even derides some of its conclusions; as that of the earth being round and encompassed by the ocean. His strange statement, that the sun in India was vertical in the morning instead of at midday, is evidently a misunderstood report of what he had been informed respecting the difference of time in the different parts of the earth's circumference. His knowledge, however, such as it was, consisting of plain facts, untinctured with theory, was both solid and extensive.

The division of the earth into three quarters, or continents, was by this time completely formed.

We cannot minutely trace the progress of geographical science, through its slow gradations, down to the Middle Ages. The conquests of Alexander extended the knowledge of the Greeks, and those of the Romans enlarged the field, till the largest portion of the three divisions of the Eastern Continent was generally known. Pliny, the most learned of the Roman writers, gives us a great variety of accurate details, amid a multitude of errors. Ptolemy, the last and greatest of ancient geographers, attempted a complete reform of the science, and showed an immense advance in knowledge, over his predecessors.

In the Middle Ages the Arabs were the most learned of nations. Geography, among them, was studied with great ardor, and employed the pens of some of their ablest writers. Astronomy was among the favorite pursuits of the Court of Bagdad, under the Caliphs, and the knowledge then acquired was applied with some care and success to the improvement of geography.

In the Dark Ages there was little progress in geographical science. As yet the boundaries of even the Eastern Continent had not been defined; large portions of the interior had not been explored; vast seas and rivers were but partially known; the shape of the earth had not been ascertained; the continent of America and the Oceanic islands, were as yet undiscovered. But a new era was approaching. The Republics of Italy, and especially that of Venice, are the states in which a spirit of commerce and inquiry had arisen, and rapid advances were made in geographical knowledge. About this time Marco Polo, a noble Venetian, spent twenty-five years in traversing the remote parts of Asia. His narrative was soon translated into various languages, and spread over Europe. The discovery of America, by Columbus, soon followed. The progress of discovery over the globe, when the first steps had been taken, was astonishingly rapid; no cost, no peril, deterred even private adventurers from equipping fleets, crossing the oceans, and facing the rage of savage nations in the remotest extremities of the earth. Before Columbus had seen the American continent, and the mouth of the Orinoco, Cabot, of Venetian descent, but sailing under English auspices, discovered Newfoundland, and coasted along the present territory of the United States, probably as far as Virginia. In the next two or three years, the Cortereals, a daring family of Portuguese navigators, began the long and vain search of a passage round the north of America; they sailed along the coast of Labrador, and entered the spacious inlet of Hudson's Bay, which they seem to have mistaken for the sea between Africa and America; but two of them unhappily perished. In 1501, Cabral, destined for India, struck unexpectedly on the coast of Brazil, which he claimed for Portugal. Amerigo Vespucci had sailed along a great part of Terra Firma and Guiana, and he now made two extensive voyages along the coast of Brazil; services which obtained for him the high honor of giving his name to the whole continent. Grijalva and Ojeda went round a great part of the circuit of the coasts of the Gulf of Mexico. In 1513, Nunez Balboa, crossing the narrow isthmus of Panama, beheld the boundless expanse of the Pacific Ocean. These discoveries afforded the impulse which prompted Cortez and Pizarro to engage in their adventurous and sanguinary career; in which, with a handful of daring followers, they subverted the extensive and populous empires of Mexico and Peru. Expeditions were soon pushed forward on one side to Chili, and on the other to California, and the regions to the north. Nearly a full view was thus obtained, both of the great interior breadth of America, and of that amazing range of coast which it presents to the southern ocean.

In the Eastern world, the domain which the papal grant had assigned to Portugal, discovery was alike rapid. Twenty years had not elapsed from the landing of Vasco da Gama, when Albuquerque, Almeida, Castro, Sequeira, Perez, and many others, as navigators or as conquerors, had explored all the coasts of Hindostan, those of Eastern Africa, of Arabia, of Persia; had penetrated to Malacca and the Spice Islands; learned the existence of Siam and Pegu; and even attempted to enter the ports of China. But the characteristic jealousy of that power was soon awakened; the Portuguese embassy was not admitted into the presence of the emperor; and a mandate was issued, that none of the men with long beards and large eyes should enter the havens of the celestial empire. After all these discoveries, the grand achievement yet remained, of connecting together the ranges of eastern and western discovery; and of laying open to the wondering eyes of mankind, that structure of the globe, which, though demonstrated by the astronomer, seemed to the generality of mankind contrary to the testimony of their senses.

Magellan, in 1520, undertook, by circumnavigating the earth, to solve this mighty problem; he passed through the straits which bear his name, and crossed the entire breadth of the Pacific. He himself was unhappily killed at the Philippine Islands, but his companions sailed on, and presented themselves to the astonished eyes of the Portuguese at the Moluccas. They arrived in Europe, after a voyage of three years; and it could no longer be doubted, by the most skeptical, that the earth was a spherical body.

We have seen how rapidly the Portuguese fleets explored all the southern coasts and islands. The eastern shores beyond Japan, as they presented nothing tempting to commercial avidity, were left to be examined by expeditions having science and curiosity for their object. This task was effected by Cook, Perouse, Broughton, and Krusenstern. Jesso, which had figured as a large continental tract, stretching between Asia and America, was reduced by them to its insular form and dimensions, and its separation from Saghalien established. The range of the Kurile islands was also traced; but some questions respecting this very remote and irregular coast remain yet to be solved. Along its northern boundary, beset by the almost perpetual ices of the polar sea, the progress of navigation was slow and laborious. The English and Dutch, the chief maritime states, made extraordinary efforts, and braved fearful disasters, in the hopeless attempt to effect, by this route, a nearer passage to India; but though they penetrated beyond Nova Zembla, they never could pass the formidable promontory of Severovostochnoi, the most northern point of the Asiatic continent. The Russians now claimed for themselves the task of advancing further. They had most rapidly discovered, and conquered the whole south and centre of Siberia, and reached the eastern ocean at Ochotzk; but the frozen bounds of the north for some time defied their investigation. Proceeding in little barks, however, they worked their way from promontory to promontory. Behring and Tchirikoff, early in the last century, sailed through the Northern Pacific, discovered the American coast, and the straits, bearing the name of the former, which divide Asia from America. Deschnew and Shalaurof, by rounding the Asiatic side of this Cape, and discovering the coast stretching away to the westward, were supposed to have established the fact of the entire separation of the two continents. There still remained a portion of coast on the side of Asia, which, it was alleged, might, by an immense circuit, have connected the two together; but the late voyage of Baron Wrangle seems to have removed every ground on which such conjecture could rest, and to have established beyond doubt or dispute, the existence of Asia and America as continents altogether distinct.

Respecting the interior of Asia, the British obtained much additional information from India, after they became undisputed masters of that region. This information was in many respects only a revival of ancient knowledge. The mountain boundary of India was traced, and found to rise to a height before unsuspected. The sources and early courses of the Ganges and the Indus, were found in quarters quite different from those which modern geography had long assigned to them. The mountain territories of Cabul and Candahar, the vast sandy plains of Mekran, were illustrated by the missions of Elphinstone and Pottinger; while Turner and Moorcroft penetrated into the high interior table-land of Thibet. Recent and authentic information has also been furnished by Burnes respecting Bocharia and Samarcand, those celebrated capitals of the early masters of Asia; but there remains still a great central Terra Incognita, respecting which our information rests chiefly upon the desultory and somewhat clouded reports of Marco Polo, and the meagre narrative of Goez; though some important and more precise information has recently been afforded by the researches of Humboldt and Klaproth.

We can hardly trace the more modern advances in geographical knowledge, except so far as relates to Amer ica and the islands of the Pacific. It may be proper to state, however, that within a few years, a vast amount of accurate information has been gained, in regard to countries in Africa, before unknown, or but partially explored. Many doubts have been solved which have puzzled the learned world for ages. In regard to Europe, almost every portion has now been examined, and its descriptive geography may be considered as accurately ascertained and defined.

More than half the surface of the globe, including long groups of islands and vast expanses of ocean, remained unexplored, even after regular naval routes had been formed round the Cape of Good Hope, and Cape Horn; yet there soon arose the belief of an Austral continent, as extensive, and as abounding in wealth, as that which had been discovered by Columbus.

The Portuguese, so long the most skilful and intrepid navigators of the ocean, appear to have been the first who threw any light upon this fifth and most remote portion of the earth; in less than twenty years after their passage of the Cape, they had reached the most extreme islands of the Oriental Archipelago, including Java and the Moluccas, and appear even to have observed some parts of the coast of New Guinea.

The Spaniards, during their early and adventurous career, made strenuous efforts to explore the southern seas; Magellan, as already observed, by his first circumnavigation of the globe, effected a grand step in geographical discovery. Alvaro Mendana, in 1568, sailed from Lima, and, after crossing the breadth of the Pacific, discovered a group of large maritime lands, to which, from a chimerical reference to Ophir, he gave the name of "Islands of Solomon;" they appear to be part of that great group which forms the outer range of Australasia. Mendana set out on a second voyage, and reached the same quarter, but, by some fatality, could not again find the islands formerly discovered. Quiros made a still more important expedition; he passed through the Polynesian group; and Sagitaria, one of the islands discovered by him, appears clearly identified with Otaheite; he terminated his voyage, like Mendana, among the exterior islands of Australasia; and with him expired the spirit of Spanish enterprise.

The Dutch, when they had expelled the Portuguese from Java and the Spice Islands, and had established in them the centre of their Indian dominion, were placed in such close proximity with New Holland, that it was scarcely possible for a great maritime nation to avoid extending their search to that region. Van Diemen, the Dutch governor of India about the middle of the 17th century, greatly promoted this object, and sent successive vessels to explore the coast of New Holland. Hertog, Carpenter, Nuytz, and Ulaming, made very extensive observations on the northern and western shores, but found them so dreary and unpromising, that no settlement of any description was ever attempted. Abel Tasman, however, went beyond his predecessors; he reached the southern extremity of this great mass of land, to which he gave the name of Van Diemen, without discovering it to be an island; he then sailed across, surveyed the western coast of New Zealand, and returned home by the Friendly Islands. This important range of discovery was not followed up; it refuted, however, the delineation by which New Holland had been made part of the imagined Austral continent. In the newly arranged charts, that continent still remained, but with its position shifted further to the south, and New Zealand probably contributing to form part of its fancied outline.

The English nation, by the voyages of several navigators, and particularly of Cook, secured the glory of fully exploring the depths of the great Pacific. The previous voyages of Byron, Wallis, and Carteret, had already made known some of the interesting groups of islands with which its vast surface is studded. Cook fully traced the great chains of the Society Islands, and of the Friendly Islands; he discovered and surveyed the eastern coasts of New Holland and Van Diemen's Land. He settled the form and relations of New Zealand, New Caledonia, and the other great Australasian lands and islands. This side he passed thrice the Antarctic circle, and, ranging along the yet unvisited borders of the southern pole solved, by refuting, the famous modern hypothesis of an Austral continent. He navigated also through the northern Pacific, observed carefully the group of the Sandwich Islands, and established, in the manner before pointed out, the relation between the continents of Asia and America. Many eminent navigators, among the French, La Pérouse, Marchand, D'Entrecasteaux; among the Russians, Kotzebue, and Krusenstern; among the English, Vancouver and Beechy, followed; and, though the grand prizes of discovery had been carried off, found still some gleanings in so vast a field. The circumnavigation of the globe has ended in becoming a mere trading voyage, which conveys neither name nor glory to him by whom it is achieved. Captain Weddell, however, has lately, in New South Shetland, found a tract of land situated nearer to the Antarctic pole than any previously supposed to exist.

New Holland, much the most extensive of the lands belonging to the southern hemisphere, and rendered doubly interesting by its recent relations with Europe, has formed the theatre of late southern discoveries. Bass, in an open boat, found the strait which bears his name, separating New Holland from Van Diemen's Land, and making the latter a separate island. Baudin and Flinders, contemporaneously employed by the French and English nations, made a continuous survey of the vast circuit of its coasts, which had been before touched only at partial points. At a later period, Freycinet made some additional observa tions; and King found still a great extent of north and northwestern coast to survey for the first time. More recently, the discovery of Swan River and its shores, promises to redeem the reproach of sterility, which had been attached to the whole western coast of this continent; the interior on the eastern side also, though guarded by steep and lofty barriers, has been penetrated to a considerable depth, and found to contain extensive plains traversed by large rivers. Still the explored tracts form only a small proportion of the vast surface of this southern continent."

The idea, that America, at the north, tapered to a point, like South America, had prevailed for a long time after the discovery of the continent; and to discover the supposed passage at the north, became the object of European enterprise.

The English took the lead in this important career. Under the reign of Queen Elizabeth, Frobisher and Davis made each three successive voyages. One discovered the entrance into Hudson's Bay, the other found the entrance into the great sea which bears the name of Baffin's Bay; but, partly arrested by the well-known obstructions to which these seas are liable, partly diverted by a chimerical search after gold, they could not penetrate beyond the numerous islands and inlets by which these entrances are beset. Hudson, in 1610, steered a bolder course, and entered the vast bay, which has received its appellation from that great navigator, who there unfortunately terminated his adventurous career. The treachery of a ferocious and mutinous crew exposed him on these frozen and desolate shores, where he miserably perished. Sir Thomas Button followed in 1612, and finding himself in the middle of this capacious basin, imagined himself already in the Pacific, and stood full sail to the westward. To his utter dismay he came to the long, continuous line of shore which forms the western boundary of Hudson's Bay. He expressed his disappointment by giving to the coast the name of 'Hope checked.' Bylot and Baffin, who followed three years after, were stopped by the ice at Southampton Island. Baffin, however, made afterwards a more important voyage, in which he completely rounded the shores of that great sea which bears his name, and which, appearing to him to be inclosed on all sides by land, has been denominated Baffin's Bay. The error involved in this appellation deterred subsequent navigators from any further attempt; for Baffin, in passing the great opening of Lancaster sound, had concluded it to be merely a gulf. From that period the English navigators, though they ceased not to view this object with ardor, hoped to fulfil it only by the channel of Hudson's Bay. In 1631, two vessels were sent thither under Fox and James. The latter, entangled in some of the southern bays, returned after dreadful sufferings from the cold of the winter; but the former, quaintly calling himself Northwest Fox, explored a part of that great opening called Sir Thomas Roe's Welcome, which appeared now to afford almost the only hope of a passage; but he stopped short at a point which he termed 'Fox's farthest.' Under Charles the Second, a company was formed for the purpose of settlement and commerce in Hudson's Bay, and engaged to make the most strenuous exertions to discover a western passage; but it is believed, that the only exertions really made by the Company tended to prevent any such discovery. Middleton, an officer in their service, was sent out in 1741, sailed up the Welcome, and believed himself to have discovered, that the head of that channel was completely closed. He was strongly charged with having received a high bribe from the Hudson's Bay Company to stifle the discovery, and Moor and Smith were sent out in the following year with the most sanguine hopes; but when they returned without having effected any thing, the public expectations were greatly abated. It became the general impression, that America, on this side, formed a mass of unbroken land, and that the long sought passage had no existence.

New views of the extent and form of the northern extremities of America were opened by the discoveries of Cook, corroborated by those of some other English navigators in the Northern Pacific. It appeared that America there stretched away to the northwest, till it reached a breadth equal to one fourth part of the circumference of the globe. Cook penetrated, indeed, through the strait which bounds the continent and separates it from Asia; but the coast appeared there extending indefinitely north; and it became a general impression, that America formed a huge unbroken mass of land approaching the Pole, and perhaps reaching that ultimate point of the globe. This belief received a sudden shock from Hearne's voyage down the Copper Mine River, and his discovery of the sea into which it fell, in a latitude not higher than that of the north of Hudson's Bay. Soon after, Sir Alexander Mackenzie traced also to the sea another river twenty degrees further west. There was now a strong presumption, that a sea bounded the whole of America to the north, and that there really was such a passage as had been so long sought, and might be found, were it not too closely barred by ice and tempest. The British administration, animated with an active and laudable zeal in the cause of discovery, determined that no possible effort should be omitted by which this important and long agitated question might be brought to a final decision.

A series of exploratory voyages was now begun. Captain Ross, in 1818, made the circuit of Baffin's Bay, and returned with the belief, that no opening existed; Lieutenant Parry, second in command, formed a different judgment, and, having satisfied the Admiralty as to his grounds of belief, was sent out with the command of a new expedition. In this memorable voyage, Captain Parry penetrated through Lancaster Sound, which he found to widen gradually, until it opened into the expanse of the Polar Sea. He did not touch on any part of the American coast, but found parallel to it a chain of large islands; and his progress through these was arrested, not by land, but by straits and channels encumbered with ice. In consideration of these obstacles, his next attempt was made through Hudson's Bay, by the yet imperfectly explored channel of the Welcome. Struggling through various obstacles, he reached at length a point considerably beyond that where Middleton had stopped, and found a strait opening from Hudson's Bay into the Polar Sea. This strait was, however, so narrow, and so completely blocked with ice, that there appeared no room to hope, that it would ever afford an open passage. Captain Parry was therefore again sent out in his first direction; but he made no material addition to his former discoveries. Meantime a land journey, under Captain Franklin, following in the footsteps of Hearne, reached the sea, and discovered a considerable extent of the hitherto unknown northern coast of the American continent. A tolerably clear glimpse was thus obtained of its extent and boundaries; and the zealous efforts of government were employed to verify the whole by actual survey. A second expedition under Captain Franklin extended this survey over three fourths of this boundary coast, and reached beyond the 149th degree of longitude. Meantime an expedition, under Captain Beechy, sent to meet Captain Franklin from the westward, passed the icy Cape of Cook, and arrived at nearly 156° W. longitude; between which point and Captain Franklin's furthest limit there intervened only 7°, or 150 miles.

The belief was hence entertained, that the whole coast extended in a line not varying much from the 70th degree of latitude; but the important expedition which Captain Ross has just achieved through so many difficulties, proves the existence of a large peninsula, extending as far north as 74° N latitude. It remains still probable, that a naval passage may exist further north, in the line of Captain Parry's first voyage. But the encumbering ice is so thick, and so wedged into various straits and channels, that probably no vessel will ever be able even once to work its way through; and certainly a ship could never set out with any assurance of thus finding its way from the Atlantic into the Pacific

GEOGRAPHICAL DEFINITIONS.

Altitude, in geography, is employed to denote the perpendicular height of any object, as the altitude of a mountain is its height above a given level, generally that of the sea.

Antarctic is a term applied, in opposition to Arctic, to the south pole, to the regions which encompass it, and to the circle by which they are supposed to be bounded at the distance of 23° 28′ from the pole.

Antipodes is a term applied to those inhabitants of the terrestrial globe who live diametrically opposite to each other. It is derived from the circumstance of their being opposed feet to feet. As the antipodes are every way distant 180° from each other, they have equal latitudes, the one north and the other south. They have also the same seasons and length of day and night, but at contrary times, it being summer with one while it is winter with the other, and day with one while it is night with the other.

Archipelago is a term applied to any part of the sea containing numerous islands, particularly to that part of the Mediterranean situated between the coast of Asia Minor and European Turkey.

Basin is a term employed to denote those lower tracts of the earth's surface which are watered by large rivers, and into which the waters of the adjacent districts descend.

Bay is an arm or portion of the sea extending into the land ; as the Bay of Biscay.

Cape is the termination of a promontory, or portion of land projecting into the sea or a lake; as the Cape of Good Hope.

Cardinal Points of the compass are the east, west, north, and south points of the horizon. These divide the horizon into four equal parts of 90° each.

Channel is the bed of a river. It is also applied to an arm of the sea; as the Bristol Channel.

Chart is a representation of the whole or part of the earth's surface, on a plane. The word is generally employed to denote maps of particular parts of the ocean, with the surrounding coasts, capes, bays, headlands, &c.

Circles of the Sphere are such as are supposed to be described either on the surface of the earth, or on the apparent sphere of the heavens. They are generally divided into two classes, great and small; the former dividing the surface into two equal, the latter into two unequal parts. The great circles are the meridians, equator, ecliptic, and horizon ; the small circles are parallels of latitude, &c.

Circles Polar are the two circles which encompass the polar regions, and are 23½ degrees from the poles.

Climate is a term that expresses that particular combination of temperature and humidity to which any region or country is generally subject ; or, in more general terms, it implies the actual state of the incumbent atmosphere.

Continent is a large tract of land, containing several contiguous countries, without any separation of its parts by the intervention of water.

Crater is the opening of a volcanic mountain from which the smoke and ignited matter issue.

Current is a body of water in motion, either on land or in the ocean.

Degree is the 360th part of a circle, or the 30th part of a sign. Each degree is divided into 60 equal parts or minutes, and each minute into 60 seconds.

Degree of latitude is that part of a meridian included between two points at which the difference in the elevation of any of the heavenly bodies, at the same instant, is equal to the 36th part of a circle.

Degree of longitude is the space between two meridians, that make an angle of one degree with each other at the pole. The degrees of longitude at different latitudes are unequal, and correspond to those of latitudes only at the equator. As the meridians approach each other till they meet at the poles, the degrees of longitude continually decrease until they become nothing at these points; hence a degree of longitude in any latitude is less than a degree on the equator.

Delta is a term frequently applied to those triangular spaces of low land between the different mouths, or near the estuaries of great rivers, which have been formed by the alluvial deposites of their waters. Thus the lower part of Egypt is usually called the Delta.

Equator is the great circle of the spheres which is everywhere equally distant from the poles. It is thus supposed to divide the surface of the sphere into equal hemispheres, the one north, and the other south. All places situated on the equator have no latitude, and the days and nights are always of the same length. Longitude is also reckoned in degrees of the equator.

Equinoctial is a great circle of the heavens corresponding to the equator on the earth. It cuts the horizon of any place in the east and west points; and when the sun arrives at this circle, it rises and sets in these points, and the days and nights are then equal all over the globe. Declination is reckoned north and south from it.

Equinoxes are the times when the sun enters the equinoctial points. This is about the 21st of March and the 23d of September; the former being the vernal, and the latter the autumnal equinox.

Evaporation is the conversion of water into vapor, which, by this process, is raised into the atmosphere, and, by a subsequent, but partial condensation, forms clouds. As a very considerable part of the earth's surface is covered with water, which is constantly evaporating and mixing with the atmosphere in the state of vapor, a precise determination of the rate of evaporation must be of great importance in physical geography. Accordingly, many experiments have been made by different philosophers to determine this point. From these we learn, that evaporation is confined entirely to the surface of the water, to which it is consequently proportional. Much more vapor, therefore, rises in maritime countries, or those interspersed with lakes, than in inland countries. More also rises during hot weather than cold ; hence the quantity of evaporation depends upon the temperature.

Geography is a description of the earth's surface ; but the enlarged sense of the term includes a description, both of the inhabitants and productions of the terrestrial globe. *Mathematical geography* describes the figure and magnitude of the earth, its diurnal and annual revolutions, the cause of day and night, the succession of the seasons, the method of determining the positions of places on the earth's surface, and the comparison of linear measures, with the construction and use of maps. *Physical geography* delineates the principal features in the aspect of nature, by which the diversified regions of the globe are distinguished from each other, and portrays their agency on its inhabitants and productions. *Civil* or *Political geography* delineates the empires, kingdoms, and states, which occupy the surface of the earth, and exhibits the monuments of human industry and skill.

Glaciers is a name given to extensive fields of ice among the Alps. Some of them clothe the elevated valleys on these lofty regions, while others envelope the sides and summits of the mountains ; the former are denominated lower, and the latter upper glaciers. Those in the valleys consist chiefly of solid ice. On the summits of the mountains they are composed of snow.

Gravitation is the tendency which every particle of matter has to every other particle, at finite distances from each other. What is called gravitation with respect to the gravitating body, is called attraction, in reference to the body gravitated to. As all bodies, whatever may be their nature or magnitude, are only aggregated particles, gravitation takes place proportionally between them; and this power thus becomes the most universal agent of the material world. It is by it that bodies retain their forms ; that the component parts of the earth, and the other planets, are not dissipated in the boundless regions of space ; that terrestrial bodies, when unsupported, descend to the earth ; that the planets and their satellites are retained in their orbits ; and that the solar system itself maintains its place in the universe.

Harbor is a place of safety for ships.

Hemisphere is half the globe when it is supposed to be cut through the centre by the plane of one of its great circles. Thus the equator separates the northern and southern hemispheres ; the meridian divides the eastern and western, and the horizon the upper and lower.

Horizon is the great circle of the sphere which divides its surface into the upper and lower hemisphere. In this sense it is called the rational horizon, and its plane passes through the centre of the earth.

Horizon sensible or *visible* is the small circle of the sphere which bounds the observer's view, and separates the visible from the invisible part of the globe.

Island is a portion of land wholly encompassed by water; as Great Britain or Ireland.

Isthmus is a narrow neck of land uniting two continents, or frequently a peninsula to a continent ; as the Isthmus of Darien.

Lake is a portion of water, either entirely surrounded by land, or having no other outlet than a river, by which its contents are discharged. When a lake is very extensive, it obtains the denomination of sea ; as the Caspian Sea.

Latitude is the distance of a place from the equator, and is estimated in degrees, minutes, &c., on the arc of the meridian passing through the place. Hence the latitude is either north or south, as the place is situated on the north or south side of the equator. The latitude of a place is always equal to the elevation of the pole above the horizon of that place.

League is the 20th part of a degree.

Longitude is the distance of a place eastward or westward from the first meridian, and is measured on an arc of the equator. It is by the combination of latitude and longitude that the situation of a place on the earth's surface is determined. As a degree of longitude is the 360th part of a circle, it is necessarily greatest at the equator, and thence decreases to the poles, where it is nothing.

Map is a plane figure, representing either the whole or a part of the earth's surface; being a projection of the different countries, seas, mountains, coast, rivers, and other features of the globe, in their relative situations and proportions, as nearly as the nature of the problem will admit; for a globular surface cannot be correctly represented on a plane. Maps are therefore either general or particular, as they represent the whole or part of the earth.

The object to be obtained by the construction of a map must determine both its kind and size. If it is to be a general map, embracing a large portion of the earth's surface, the size must be large, and the projection employed such as will introduce but little alteration into the configurations of the countries it contains. Otherwise, the multiplicity of objects it must comprehend, and the alteration they would undergo, would render the representation altogether inadequate to the purpose. If, for instance, it is intended to construct a planisphere to be used in the study of astronomical geography, the stereographic projection on the plane of the horizon is best adapted If a map of the world, for the purposes of physical geography be the object, the plane of the meridian is to be preferred, as this enables the geographer to present the old and new continents unbroken ; the one being exhibited in the eastern, and the other in the western. The principal aim in this choice should be to exhibit the most faithful picture of the regions to be represented, upon the largest scale which the size of the map will admit, and consequently to exclude every thing foreign to the object in view. The top of a map is considered as north, the bottom south, the right hand east, and the left hand west.

Measure. The English statute mile consists of 5,280 feet, 1,760 yards, or 8 furlongs. The Russian werst is little more than ¾ of a mile English. The Scotch and Irish mile is about 1¼ English. The Dutch, Spanish, and Polish, is about 3¼ English. The German is more than 4 English. The Swedish, Danish, and Hungarian, is from 5 to 6 English. The French common league is near 3 English. The English marine league is 3 English miles.

Meridian is a great circle, passing through the poles of the earth, and any given place on its surface. It therefore divides this surface into two hemispheres, the one being the eastern, and the other the western. The first meridian of any country is that from which its geographers, navigators, and astronomers commence their reckoning of longitude.

Minute of a degree, is the 60th part of a degree ; this is subdivided into 60 seconds, and each of these again into thirds, when necessary.

Mountain is any considerable elevation on the earth's surface. This name is applied both to detached heights, and connected groups or chains of these eminences.

North is that point of the horizon which is equally distant from the east and west points, and is diametrically opposed to the south.

Oasis is a term frequently applied to a fertile district amidst vast deserts of sand. Several of these occur in the sandy oceans of the African deserts; where the contrast was so great, as to induce the ancients to regard them as the *Hesperides*, or isles of the blessed.

Ocean is the term by which the vast mass of waters covering about two thirds of the earth's surface is designated. For the sake of perspicuity, geographers have supposed it to be divided into various parts, to which they have given particular names.

Pampas is a name given by the South Americans to the vast plains, which characterize their country.

Parallels of latitude are small circles of the sphere parallel to the equator.

Peninsula is any portion of land nearly surrounded by water. The term is generally applied to those parts which project into the ocean, and are joined to the main land by an isthmus.

Plateau is an elevated plain, or any high tableland terminated on all sides by declivities. The central parts of Asia, the middle regions of Spain, and the vast elevated lands on which Mexico is situated are all of this kind.

Polar circles are two small circles of the sphere which encompass the frigid zones, and are 23° 28′ distant from the poles.

Pole is the point on the earth's surface where it is penetrated by the axis. As this axis terminates in two opposite points, the one is the north and the other the south pole, and each is 90° from the equator.

Prairie is a term applied to the unwooded tracts in the great valley of the Mississippi.

Promontory is a portion of land projecting into the sea, the end of which is generally called a cape.

River is a considerable body of water collected in the more elevated parts of the land, and descending into the lower, either discharging itself into another river or flowing into the sea. The courses of rivers always mark the greatest declivities of land over which they flow, and their magnitude is generally proportional to the height and distance of their sources.

Savanna is a term by which the vast extended plains in America are frequently denoted.

Sea, in its general extent, implies the whole of that vast body of water which covers a great part of the globe. It is, however, used to denote a particular part of this fluid, as the Baltic Sea, White Sea, &c.

Solar System is that assemblage of planets and satellites which have the sun for their common centre, and which revolve about him, or rather about the centre of gravity of the system.

Solstice is that point of time in which the sun is at his greatest distance from the equator, or when he is in those points of the ecliptic which touch the tropic of Cancer and Capricorn. There are, therefore, two solstices in the year, the one when the day is the longest, and the other when it is the shortest.

Sound is a small sea so shallow that it may be sounded.

South is one of the cardinal points of the compass, and that which is opposed to north.

Sphere, in geography, generally implies the relative positions of the equator and the horizon at any point on the earth's surface. Or, as the horizon varies with the position of the observer, it implies the relation of his situation with respect to the equator. As there can only be three distinct positions of these two circles, so there are said to be three kinds of spheres. When the equator and horizon intersect each other, at right angles, the position of the sphere is called a *right sphere*, which can be the case with those who live at the equator only. When the equator coincides with the horizon, and the parallels of latitude are parallel to it, the position is denominated a *parallel sphere*. This can only take place at the poles. In all other cases, the equator and horizon intersect each other obliquely, and then the position is called an *oblique sphere*.

Steppes are plains of great extent, and wholly destitute of the larger species of vegetables. This term is generally employed to denote plains of this kind in Europe and Asia, while the words savanna and pampas signify the same thing in America.

Twilight is the faint light between perfect day and complete night. It is occasioned by the atmosphere refracting the rays of the sun after he has descended below the horizon. Its duration, therefore, varies not only with the latitude of the place, but also with the time of the year.

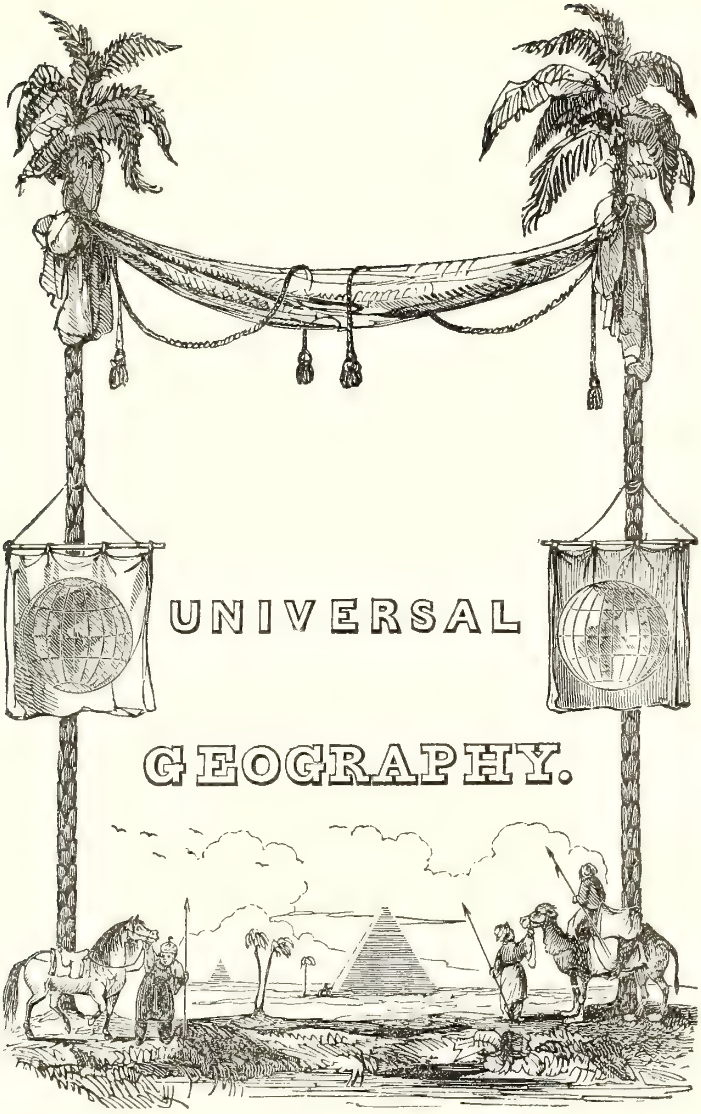
Vale signifies an extent of low country lying between ranges of higher ground. Vale and valley have distinct and appropriate meanings ; the word valley is the diminutive of vale.

Volcano is a mountain which emits fire, smoke, or ignited matter. The number of active volcanoes on the globe is estimated at about 200.

Wind is a current of the atmosphere. There are three kinds of winds, permanent, periodical, and variable. The former blow between the tropics, and are called trade winds. Periodical winds, called monsoons, blow with great force in one direction nearly half the year, and towards the opposite point during the remainder. Variable winds blow from every point of the compass in the temperate regions of the globe.

Year is that portion of time which the sun occupies in passing through the 12 signs of the zodiac, or rather, which the earth requires to complete one revolution about the sun.

Zone is a division of the earth's surface made by two parallel circles. There are five of these zones, the torrid zone, the two frigid zones, and the two temperate zones.



INTRODUCTION.

I. ASTRONOMICAL PRINCIPLES.

1. *General Views of the Universe.* If we look upward, we observe a blue vault stretched over our heads, which at night is illuminated by a multitude of stars. If we go to Europe, we observe the same wonderful display above us. If we travel to Arabia, or China, or the islands of the Pacific, or to the Polar regions, wherever we may go, still the sky is over us, and the sun, moon, and stars shine down upon us. The earth is evidently swung in the air like a ball, supported by no foundation, and only kept in its place by the power of an Almighty Being.

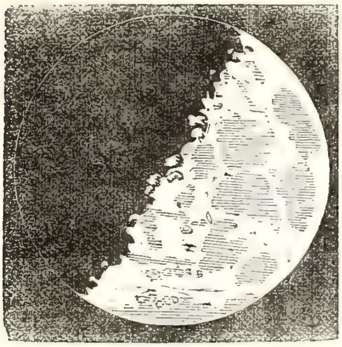
If we keep our attention fixed upon our earth and the heavenly bodies, we shall soon discover that several of them are in motion. The moon revolves around the globe. Some of the stars change their places. The sun itself is observed to turn round. If we investigate still further, we shall discover that these brilliant orbs, which occupy the heavens, are all of them worlds, some of them larger and some smaller, all moving in their appointed courses, and all fulfilling the will of the Almighty Architect who made them.

The study of the heavenly bodies is called astronomy : geography, strictly speaking, is a description of the earth. However interesting and wonderful the subject of astronomy may be, we can only attend to it here, so far as may be necessary to complete our view of the globe we inhabit.

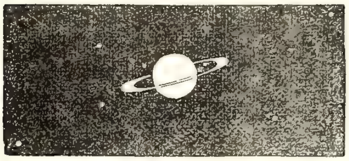
2. *Fixed Stars. Constellations.* The stars nearest to our earth are grouped into signs or constellations, for the convenience of description ; but the more distant appear to the eye as nebulous patches or streaks of diluted light, which optical instruments have enabled us to resolve partially into clusters of stars, and these analogy teaches us to regard as myriads of suns ; while imagination, ranging through illimitable space, pictures still more remote orbs, whose light has for ages travelled the vast profound, without yet reaching the abodes of man. The great mass of these stars appear to us to remain in the same relative situation, and have therefore been called *Fixed Stars*, although it is probable that they are all in a state of motion. Their number seems to be beyond calculation, their distance from the earth is too great to be measured by human skill ; but mathematical considerations show us, that it cannot be so small as nineteen trillions of miles ; how much larger it may be we know not.

3. *Solar System.* But the celestial bodies with which we are most familiarly acquainted, are those which are called *planets* or wanderers, and which revolve around the sun as their common centre of gravity. These bodies, of which the terraqueous globe is one, together with several secondary planets which revolve around the larger, an unknown number of comets, and the Sun itself, the great central mass, form what is called the *Solar System.*

(1.) *Primary Planets.* Those planets which revolve around the sun are called *primary* planets, and the number at present known is ten, beside our Earth, but it is not at all improbable that there may be others yet undiscovered. Four of them are remarkably large and brilliant. Venus, Mars, Jupiter, and Saturn ; another, Mercury, is also visible to the naked eye as a large star, but, on account of its nearness to the sun, is seldom conspicuous ; a sixth, Uranus or Herschel, is barely discernible without a telescope ; and four others, Ceres, Pallas, Vesta, and Juno, are not visible to the naked eye. Five of these planets, Mercury, Venus, Mars, Jupiter, and Saturn, have been known and named from the earliest ages of history ; Uranus or Herschel was discovered by Herschel in 1781, and the other four have been discovered still more recently. Saturn is distinguished from the other planets by its being surrounded by two luminous rings concentric with itself, which are visible only by means of a telescope.



The Moon.

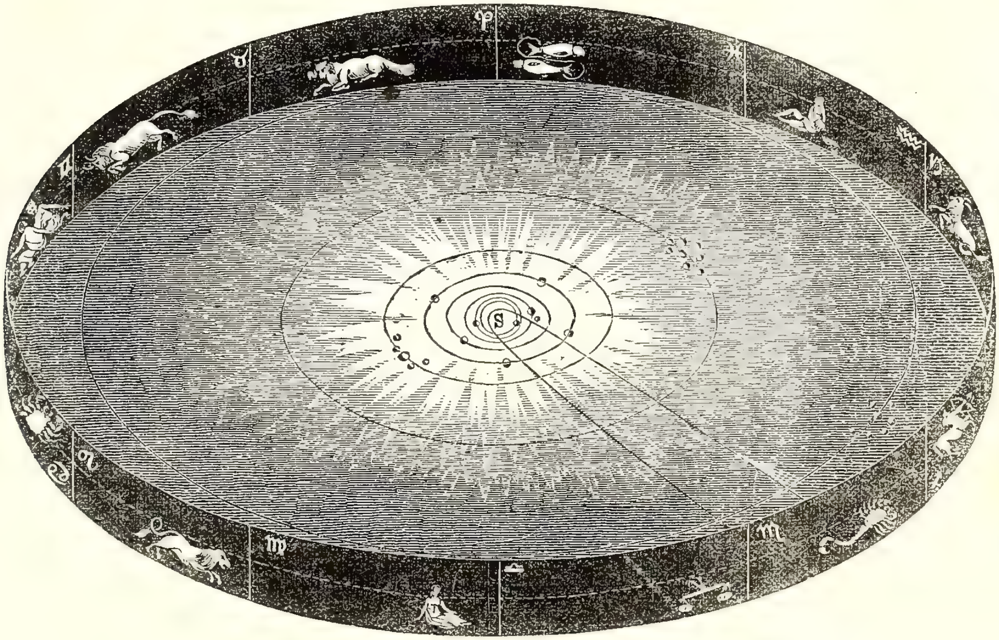


Saturn with its Satellites.

(2.) *Satellites.* The smaller bodies, which revolve round several of the primary planets, and probably serve as moons to their inhabitants, are called *secondary* planets or *satellites.* The number of satellites certainly known is fourteen, four more are suspected, and it is not impossible that the number may even be larger ; of these, one, the moon, belongs to the earth, four to Jupiter, seven to Saturn, and certainly two, probably five or six, to Uranus.

(3.) *Comets.* A third class of bodies belonging to the solar system, are the *comets*, with the nature of which we have but slight acquaintance. Their actual number is unknown, but is supposed to amount to some thousands. They generally consist of a large and splendid, but ill-defined nebulous mass of light, called the *head*, which is usually much brighter towards the centre, and offers the appearance of a vivid *nucleus*, like a star or planet. From the head, and in a direction opposite to that in which the sun is situated from the comet, appear to diverge two streams of light, which grow broader and more diffused at a distance from the head, and which sometimes unite at a little distance behind it, and sometimes continue distinct for a great part of their course ; this s called the *tail* Some comets, however, have no tail, and some have as many as five or six. The length of these appendages is sometimes immense; that of the comet of 1680 was 40 million leagues. These bodies revolve round the sun in very elliptic orbits, some moving with great velocity, others with extreme slowness, some in a direct, and others in a retrograde course; but it has been shown that their motions are regulated by the same general laws as those of the planets, and the times of the revolutions of several are known.

4. ***Rotation of the Sun and Planets.*** From the phenomena of the spots, which, by the aid of a telescope, are visible on the sun's disc, we are led to the conclusion, that that body revolves from east to west on an axis, in about twenty-five days and a half. If a spot is carefully watched, when first discovered on the eastern edge of the disc, it will be found to move gradually toward the centre, and thence toward the western edge, until at length it entirely disappears in that direction; and in about fourteen days it is often seen again on the eastern side. That the moon, and Mercury, Venus, Mars, Jupiter, and Saturn, have each a rotation from west to east is inferred in like manner from the spots that are seen to traverse their discs. The moon always presents the same side to the earth, and must, therefore, revolve on her axis in the same time in which she is carried round the earth by her revolution in her orbit. In the remaining planets no appearances have been discovered which enable us to ascertain whether or not they revolve on axes; though from analogy it is highly probable that they do.



The Ecliptic.

5. ***Apparent Annual Motion of the Sun. Zodiac.*** Beside the apparent daily motion of the sun round the earth, he also appears to move eastward among the fixed stars. The circle which the plane of the path or orbit thus annually described, marks out on the sphere of the heavens, is called the *ecliptic*. It passes through twelve constellations, which are called the *twelve signs*. This has given rise to the division of the ecliptic into twelve equal parts, which are also called *signs*, and each of which of course contains 30 degrees, or one-twelfth of a whole circle of 360 degrees. The twelve signs are contained in a zone or belt of the starry heavens, 47 degrees in breadth, called the *Zodiac*. The names of these constellations, with the characters by which they are usually denoted, are as follows:

Aries or Ram ♈.	Spring Signs.	Libra or Scales ♎.	Autumn Signs.
Taurus or Bull ♉.		Scorpio or Scorpion ♏.	
Gemini or Twins ♊.		Sagittarius or Archer ♐.	
Cancer or Crab ♋.	Summer Signs.	Capricornus or Goat ♑.	Winter Signs.
Leo or Lion ♌.		Aquarius or Water Carrier ♒.	
Virgo or Virgin ♍.		Pisces or Fishes ♓.	

Constellations.

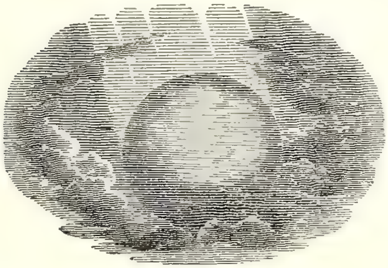
6. *Equinox. Solstice.* A circle of the celestial sphere, whose plane passes through the earth's centre, and is perpendicular to its axis, is called the *celestial equator ;* this circle is cut by the ecliptic in two opposite points, called the *equinoctial points.* The first point of Aries coincides with the point of the *vernal equinox*, and the first point of Libra with that of the *autumnal equinox.* As the sun on leaving the point of the vernal equinox advances in the ecliptic, his meridian altitude above our horizon daily increases, and hence arises a gradual increase in the length of the day, until the sun reaches his greatest altitude, and the day acquires its greatest length ; the point of the ecliptic at which the maximum takes place is called the *Summer Solstice.* Having reached this point the sun now turns back towards the equator which he crosses at the point of the autumnal equinox ; his meridian altitude and the length of the days are now gradually diminishing, and the point at which they become least is called the *Winter Solstice.* The vernal equinox falls about the 21st of March, the summer solstice on the 21st of June, the autumnal equinox about the 23d of September, and the winter solstice the 22d of December.

7 *Principal Elements of the Solar System.*

Names.	Sidereal Period Days.	Mean distance from Sun. Miles.	Rotation. Days.	Diameter. Miles.
Sun,	———	———	25,05	882,000
Mercury,	87·97	36,000,000	1,01	3,200
Venus,	224·70	68,000,000	·97	7,800
Earth,	365·26	95,000,000	1	7,920
Mars,	686·98	143,000,000	1·03	4,100
Vesta,	1325·74	224,000,000	?	?
Juno,	1592·66	253,000,000	?	?
Ceres,	1681·40	262,000,000	?	?
Pallas,	1686·54	263,000,000	?	?
Jupiter,	4332·58	484,000,000	·41	87,000
Saturn,	10,759·22	900,000,000	·43	79,000
Herschel or Uranus,	30,686·82	1820,000,000	?	35,000
Moon,	27·32	———	27·32	2,160

The following illustration of the relative magnitudes and distances of the parts of our system, as stated in the above table, is given by the celebrated astronomer Herschel. "Choose," says he, "any well-levelled field or bowling-green. On it place a globe, two feet in diameter ; this will represent the sun ; Mercury will be represented by a grain of mustard-seed, on the circumference of a circle 164 feet in diameter for its orbit ; Venus a pea, on a circle 284 feet in diameter ; the Earth also a pea, on a circle of 430 feet ; Mars a rather large pin's head, on a circle of 654 feet; Juno, Ceres, Vesta, and Pallas, grains of sand, in orbits of from 1000 to 1200 feet. Jupiter, a moderate-sized orange in a circle nearly half a mile across; Saturn, a small orange, in a circle of four fifths of a mile; and Uranus, a full-sized cherry or small plum upon the circumference of a circle, more than a mile and a half in diameter."

II. THE EARTH, ITS FIGURE, DIMENSIONS, &c.



1. *The Earth.* The earth is a planet, of a globular shape, and forming very nearly a perfect globe or sphere. Like the other planets it has two motions; its rotation on its own axis, completed in about 23 hours and 56 minutes, causes the apparent daily revolution of the sun and heavens round the earth, and thus produces the alternation of day and night; its motion in its orbit, which carries it round the sun in about 365 days and 6 hours, produces the alternation of the seasons. That the earth is round, is proved by several considerations, such as the shape of its shadow on the moon during an eclipse; the fact that it is constantly circumnavigated, so that a ship, by steering in a general direction, either eastward or westward, arrives again at its point of departure, and also by the appearances, exhibited by vessels at sea. At a short distance the hull of the vessel is sunk below the horizon; a little further the lower sails disappear, and then the topsails.

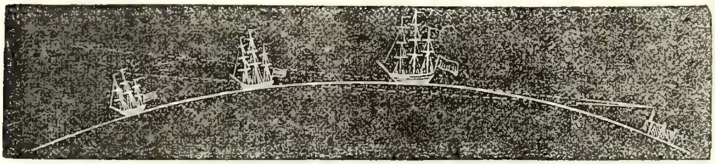


Illustration of the sphericity of the Earth.

2. *Axis, Poles.* The *axis* of the earth is an imaginary line passing through its centre, and about which it revolves; the extremities of the axis are called the *poles;* the north pole is called *Arctic* pole, from its being in the direction of the Great Bear (in Greek *Arctos*); the south pole, the *Antarctic.*

3. *Equator, Meridian.* An imaginary great circle, passing round the earth from east to west, and equally distant from both poles, is called the *equator;* imaginary great circles drawn round the earth from north to south, passing through the poles, and intersecting the equator at right angles, are called *meridians.*

4. *Latitude and Longitude.* The relative position of a place on the earth's surface is determined by its distance north or south of the equator, and its distance east or west of any given meridian, called the *prime meridian;* on English and American maps and globes the meridian of Greenwich in England, is generally assumed as the prime meridian; but American geographers often adopt that of Washington, and other nations those of their respective capitals. Distance from the equator is called *latitude;* distance from the prime meridian is called *longitude.*

5. *Degrees, &c.* The geographical measure of distance is a *degree* or 360th part of a great circle of the earth; the degree is divided into 60 minutes and the minute into 60 seconds. Circles passing round the earth parallel to the equator at given distances from each other, whether of one, five, or ten degrees, are called *parallels* of latitude, and serve to show at what distance from the equator are the points through which they pass. In the same way meridians are drawn round the earth's surface from north to south at the same distances.

6. *Tropics.* In spring and autumn, the sun appears to move round the earth over the equatorial regions; but in summer the sun appears to be 23½ degrees north, and in winter the same distance south of the equator. Circles passing round the earth at these points are called *tropics.* That at the south of the equator being the tropic of Capricorn, and that at the north the tropic of Cancer.

7. *Polar Circles.* When the sun is in the tropic of Cancer, he is not visible round the Antarctic pole for a distance of 23½ degrees; and on the contrary, when he is in the tropic of

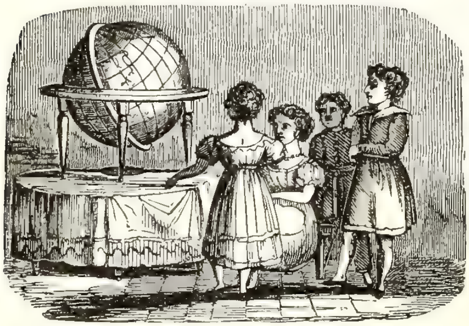
Capricorn, he is not visible for the same distance round the Arctic pole. Circles drawn round the poles at that distance, are called respectively the *Arctic* and *Antarctic circle.*

8. *Zones.* These circles and the tropics divide the surface of the earth into five bands or *zones ;* that which lies between the tropics, on both sides of the equator is called the *torrid* zone ; the band between the tropic of Cancer and the Arctic circle, is called the *northern temperate* zone, and that included within the Arctic circle the *northern frigid* zone. Between the tropic of Capricorn and the Antarctic circle, is the *southern temperate* zone, and within the Antarctic circle, the *southern frigid* zone.

9. *Dimensions and Divisions of the Earth.* The mean diameter of the earth is 7,912 miles ; its circumference at the equator nearly 24,900 miles ; and its area 198 million square miles. The surface is divided into land and water ; the former occupies about 50 million square miles, and the latter 148 millions, being nearly three fourths of the whole surface.

10. *Representation of the Earth.* In order to obtain a correct conception of the appearance of the surface of the earth, representations of that surface, on a small scale, ought to be presented to the eye. There are two ways in which the earth may be thus represented to our view ; viz. by globes and by maps.

11. *Globes.* The appearance of the surface of the earth may be delineated upon the surface of a solid having the same figure as the earth. This is the most accurate mode of representation, for an exact image of it may in this way be formed. Such an image of the earth is called a terrestrial globe.



12. *Maps.* The other way of representing the earth's surface, is by drawing a part of it upon a plane. Such drawings are called maps. The necessity of maps arises from large globes being very expensive and inconvenient for use ; while on small ones sufficient details cannot be introduced.

Maps are constructed by making a projection of the globe, on the plane of some particular circle, supposing the eye placed at some particular point, according to the rules of perspective.

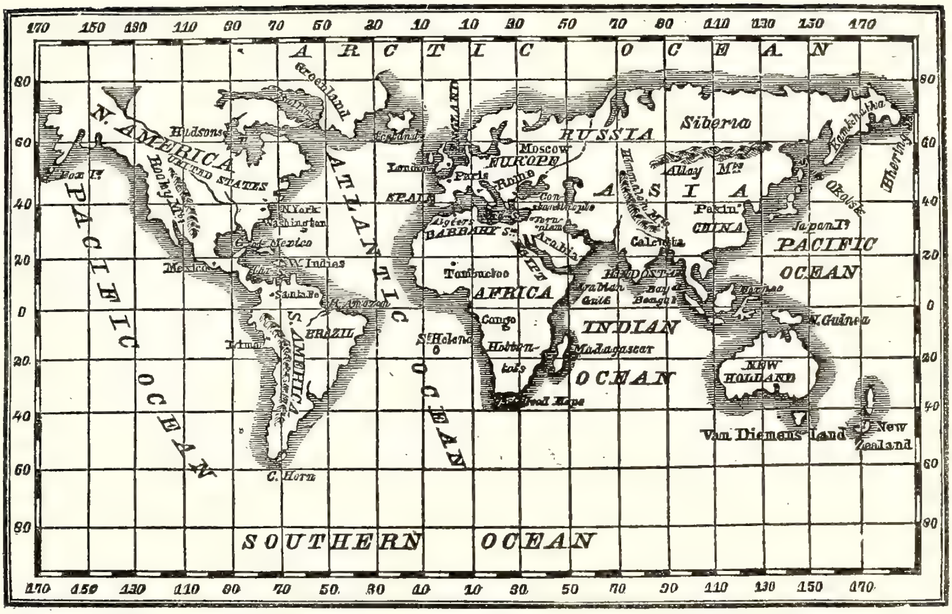
In maps three things are required ; First to show the latitude and longitude of places, which is done by drawing a certain number of meridians and parallels of latitude ; Secondly, the shape of the countries must be exhibited as accurately as possible ; for real accuracy cannot be obtained by projection, because the map is on a plane surface, whereas the earth is globular ; Thirdly, the bearings of places, and their distances from each other must be shown.

In all maps, the upper part is the north, the lower the south, the right the east, and the left the west. On the right and left the degrees of latitude are marked.

III. LAND AND WATER.

1. *Continents.* The land surface of the earth is divided into three vast masses called *continents*, and numerous smaller tracts, called *islands.* The *eastern* continent comprises three great divisions called Asia, Europe, and Africa, lying chiefly upon the north of the equator ; the *western* continent comprises two divisions called North America and South America ; and the *southern* continent or New Holland lies to the south of the equator. The eastern continent has an area of 31,500,000 square miles ; the western of 14,800,000 ; and the southern of 4,200,000.

2. *Islands.* Smaller portions of land scattered over the ocean, or otherwise surrounded by water, are called *islands ;* some of these form considerable masses, as Borneo and Madagascar, the largest known islands. A number of islands lying near each other is called a *group* or cluster ; several groups lying near each other are often called an *archipelago.* Small islands are also called *islets ; keys* are rocky islets, which are sometimes numerous along the coasts of continents or large islands.



Map of the Earth on a plane surface.

The following table exhibits the principal islands throughout the globe, with their extent.

Name.	Extent. Sq. Ms.	Name.	Extent. Sq. Ms.	Name.	Extent. Sq. Ms
New Holland	3,000,000	Luzon	65,000	Ireland	32,000
Borneo	300,000	Niphon	54,000	St. Domingo	28,000
Madagascar	220,000	Java	51,000	Sicily	10,455
New Guinea	290,000	Cuba	45,000	Sardinia	9,120
Sumatra	150,000	New Zealand N. Is.	43,600	Owyhee	4,000
Celebes	60,000	Iceland	40,000	Long Island	1,400
Great Britain	88,573	Newfoundland	38,500	Otaheite	600
Nova Zembla	81,000	New Zealand S. Is.	36,000		

3. *Capes*, *Peninsulas*, &c. A part of the land running out into the sea, and joined to the mainland only by a narrow neck is called a *peninsula* ; projections of land of less extent, reaching but a little way into the sea are called *capes*, *headlands*, *promontories*, or *points*. A narrow neck of land joining larger masses is called an *isthmus*.

4. *Oceans*. There is in fact one continuous mass of water, called the *ocean*, surrounding the land which rises above its level in continents and islands ; but for convenience sake different parts of it have distinct names given to them, as appears by the following table :

I. The great *Southeastern Basin*, the waters of which cover nearly half the globe, includes :

i. The *Pacific Ocean* 11,000 miles in length from east to west, and 8,000 in breadth, occupying a superficial space rather larger than the whole mass of the dry land. It extends from Behring's Straits on the north, to a line drawn from Cape Horn to Van Diemen's Land on the south ; and from America on the East, to Asia, Malaysia, and Australia on the west. In consequence of the wide expanse of its surface it is remarkably exempt from storms, except near its mountainous shores, and hence its name. It is often also called the South Sea ;

ii. The *Indian Ocean*, lying between Africa on the west, and Malaysia, and Australia on the east, and between Asia on the north, and a line drawn from the Cape of Good Hope to Van Diemen's Land on the south, is about 4,500 miles in length and breadth ; it covers a surface of about 17,000,000 square miles ;

iii. The *Southern* or *Antarctic Ocean* surrounds the south pole, lying to the south of a line drawn quite round the globe from Cape Horn, along the southern extremity of New Zealand, Van Dieman's Land, and Africa, back to the point of starting. It embraces an area of 30,000,000 square miles. It is generally covered with floating ice as far north as 60° south latitude, and in higher latitudes appears to be blocked up by an impenetrable barrier of fixed ice.

II. The *Western Basin* forms a channel between the eastern and western continents, and washes their northern shores. It includes :

I. The *Atlantic Ocean* stretching from the Southern Ocean to the Arctic circle ; it is about 8,500 miles in length, varying much in breadth, and it covers an area of 25,000,000 square miles ;

II. The *Arctic Ocean* surrounding the north pole ; it is in part covered with impenetrable fields of perpetual ice, and it contains large masses of land of unknown extent. It is often called the Icy or Frozen Ocean or Polar Sea ;

5. *Uses of the Ocean.* Although it presents to the eye only the image of a watery waste, the ocean sustains an important part in the economy of nature. It is the fountain of those vapors which replenish the rivers and lakes, and dispense fertility to the soil. By its action on the atmosphere it tempers the extremes of heat and cold. It affords an inexhaustible supply of food and of salt, a substance hardly less important. As the great highway of commerce it connects the most distant parts of the globe, affording facilities of intercourse to nations the most remote from each other.

6. *Seas, Gulfs, and Bays.* When the ocean penetrates into the land forming a large expanse of water, this inland portion of the ocean is usually termed a *sea ;* such a body of water of less extent is generally called a *gulf* or *bay ;* but these three terms are often confounded.

The following are the principal bays : Baffin's, Hudson's, James's, Fundy, Passamaquoddy, Machias, Penobscot, Casco, Massachusetts, Buzzard's, Narragansett, Delaware, Chesapeake, Campeachy, Honduras, Bristol, All Saints, Cardigan, Donegal, Galway, Biscay, Bengal, Walwich, Fable, False, Angola, Natal, Saldanha, and Botany.

The following are the principal gulfs : St. Lawrence, Mexico, Darien, California, Panama, Guayaquil, St. George, Bothnia, Finland, Riga, Genoa, Naples, Tarento, Venice, Salonica, Persian, Ormus, Siam, Tonquin, Corea, Obi, Guinea.

The principal seas are the following : Chinese, Carribean, Mediterranean, Okhotsk, Celebes and Corea, Black, North, Red, Baltic, White, Azof, Marmora, and Irish.

7. *Strait, Sound,* &c. A narrow passage of water leading from one sea or gulf to another, is called a *strait ;* a wider passage between two large bodies of water is called a *channel* or *sound.*

The principal channels and straits are the following : Davis's, Hudson's, Belle Isle, Michillimackinac, Behring's, Magellan, Skager Rack, Cattegat, Dover, Gibraltar, Bonifacio, Messina, Dardanelles, Constantinople, English, St. George's, North, Babelmandel, Ormus, Mozambique, Sunda, Malacca, Endeavor, Bass's, Dampier's, and Cook's.

The following are the principal sounds : Long Island, Albemarle, Pamlico, Prince William's, Queen Charlotte's, and Nootka.

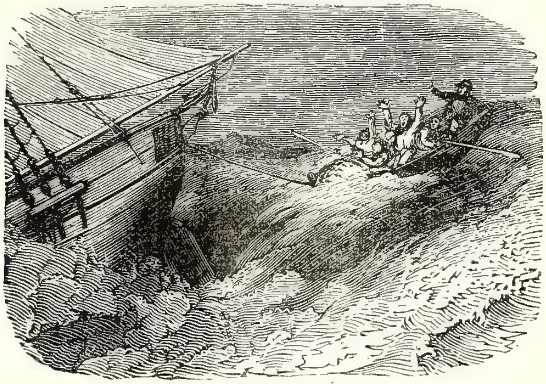
8. *Harbors, Roadsteads,* &c. Small bays or arms of the sea, completely landlocked, or so much so as to protect ships lying in them from the winds and the sea-swell, are called *ports, harbors,* or *havens ;* more open arms of the sea, which afford good anchoring ground, are called *roads* or *roadsteads.* A good harbor must be deep, capacious, and safe.

9. *Depth of the Ocean.* The bottom of the sea appears to have inequalities similar to the surface of the dry land, and the depth of the water is, therefore, various. There are vast spaces where no bottom has been found, and if it is true that the depth of the sea bears any analogy to the elevations of the dry land, it would be in some places from 20,000 to 26,000 feet ; the greatest depth ever sounded is 7,200 feet.

10. *Tides. Tides* are regular periodical oscillations in the waters of the ocean, which are caused by the attraction of the sun and moon, and which take place twice every twenty-four hours. In the open sea they are at their height three hours after the moon has passed the meridian of the place, and the meridian opposite. Their greatest elevations take place in narrow seas, where the action of the sun and moon is assisted by winds, currents, the position of the coast, &c. The highest tides known are in the Bay of Fundy, where the flood rises to the height of 70 feet.

11. *Currents.* Beside the motions produced by the tide, it has been found that there are permanent oceanic currents, always setting in the same direction. There is one called the *polar* current which sets from each pole towards the equator, as appears from the masses of

floating ice, constantly moving in that direction. Another current, called the *tropical* current, sets, within the tropics, from east to west ; so that vessels coming from Europe to America, descend to the latitude of the Canaries, where they are carried rapidly westward, and in going from America across the Pacific to Asia, a similar effect is observed. The *Gulf Stream* is one of the most remarkable and best known of the oceanic currents.



Whirlpool.

12. *Whirlpools.* When two opposite currents of about equal force meet one another, they sometimes, especially in narrow channels, turn upon a centre and assume a spiral form, giving rise to *whirlpools.* Sometimes the most violent of these, when agitated by tides or winds, become dangerous to navigators.

13. *Saltness of the Sea.* The waters of the sea hold in solution several salts, among which are common salt or muriate of soda, Epsom salt or sulphate of magnesia, and Glauber's salt or sulphate of soda. The saltness of the sea varies in different places, but is generally less towards the poles than near the tropics, and in inland seas or bays than in the open ocean. In some places springs of fresh water rise up in the midst of the sea. The bitterness of sea-water is supposed to be owing to the decomposed animal matter which it contains. It is easier to perceive the great advantages arising from the saltness of sea-water than to discover its origin. Without this saltness and without the agitation in which its waves are constantly kept, the ocean would become tainted. It is remarkable, that the saltness of the sea is less toward the poles than under the equator.

14. *Color of the Sea.* The green and yellow shades of the ocean arise from marine plants. The sparkling of the sea at night presents an imposing spectacle. A vessel, while ploughing her way through the billows, often appears to mark out a furrow of fire ; sometimes every stroke of the oar of a boat, emits a light either brilliant and dazzling, or tranquil and pearly. This wonderful phenomenon is supposed to be produced, at least in part, by multitudes of small phosphorescent animals that live in the water.

15. *Temperature of the Ocean.* The temperature of the sea changes much less suddenly than that of the atmosphere, and it is by no means subject to such extremes of heat and cold as the latter.

IV. SURFACE OF THE LAND.

1. *Inequalities of Surface.* The inequalities of the earth's surface arising from mountains and valleys, may be likened to the roughnesses on the rind of an orange compared with its general mass. The highest mountain known does not exceed five miles in perpendicular height ; this is only one 1600th part of the earth's diameter, and on a globe of 16 inches in diameter, such a mountain would be represented by a protuberance of one hundredth part of an inch, which is about the thickness of drawing-paper. The deepest mine does not penetrate half a mile below the surface ; and a scratch or pin-hole duly representing it on the surface of such a globe, would not be perceptible without a magnifier. The greatest depth of the sea does not probably much exceed the greatest elevation of the continents, and the ocean would be represented by a mere film of liquid, such as in our model would be left by a brush dipped in color, and drawn over those parts intended to represent the sea.

View of the Alps.

2. *Mountains.* The greatest elevations of the earth's surface are called *mountains ;* elevations of an inferior height are called *hills.* Mountains are sometimes completely insulated, but they are more

commonly disposed in chains ; a *chain* is a series of mountains, the bases of which are continuous. Several chains are often connected with each other, forming a *group ;* and several groups in the same manner form a *system.*

The height of mountains is their elevation above the level of the sea, and as the bases are often situated upon elevated plains, the apparent height of the mountainous peaks is much less than their absolute height. Cols or necks are depressions in mountainous chains affording a passage from one declivity of the ridge to the opposite ; they are sometimes called *gates, gaps,* or *passes.*

Heights of Principal Mountains.

Europe	Feet.
Mont Blanc (Alps),	15,781
Mont Rosa "	15,555
Jungfrau "	13,720
Mont Perdu (Pyrenees),	11,283
Mulahacen (Sierra Nevada),	11,673
Ætna (Sicily),	10,963
Parnassus (Greece),	8,000
Ben Macdiu (Scotland)	4,418
Snowdon (Wales),	3,571
Helvelyn (England),	3,055

Asia.	Feet.
Dhawalagiri (Himala),	26,862
Jamautri "	25,500
Elburz (Caucasus),	18,500
Ararat (Armenia),	17,266
Demavend (Persia),	14,700
Lebanon (Syria),	9,520
Africa.	
Geesh (Abyssinia),	15,000
Teneriffe Peak (Canaries),	12,236
Lupata (South Africa),	12,000
Atlas (Morocco),	11,400
Oceanica.	
Mouna Koah (Sandwich I.),	18,400
Ophir (Sumatra),	13,842

America.	Feet.
Sorata (Bolivia),	25,000
Illimani, "	24,450
Chimborazo (Peru),	21,440
Cotopaxi (Peru),	18,890
Mt. Hooker (British America),	20,000
Popocatepetl (Mexico),	17,716
Orizaba "	17,370
Mt. St. Elias "	17,670
Long's Peak (United States),	13,430
Black Mountain (N. Carolina),	6,426
Mt. Washington (N. Hampshire)	6,428

3. *Forms and Use of Mountains.* Mountains, in their exterior forms, exhibit some varieties, which strike the most inattentive observer. The highest mountains most frequently present a surface of naked rock. In some places they shoot up in the form of enormous crystals with sharp angles. Sometimes there appears an immense, steep, and abrupt surface, which seems to lay open to view the bowels of the mountain itself. These appearances are described under the names of *needles, peaks,* &c. There are other mountains, the tops of which present circular outlines, which give them an air of tranquillity. The mountains of New England and the Appalachian chain generally, are of this character. Some mountains rise in majestic and regular gradations, like a vast amphitheatre ; others present a large mass cut perpendicularly in the form of an altar, like the Table Mountain at the Cape of Good Hope. There are mountains in China which resemble the heads of dragons, tigers, and bears. In other places there are labyrinths of rocks, which rise in the form of pillars. In the south-eastern part of France, there is a mountain in a single mass in the form of a large nine-pin. In another part of France, there are mountains which are described as resembling the old-fashioned frizzled wigs. In short, the varieties in the form of mountains, as described by travellers, seem to be almost infinite. Some of them are highly picturesque and beautiful, and fill the mind of the beholder with pleasing emotions. Others are lofty, rugged, and sublime, and awaken feelings of awe and astonishment.

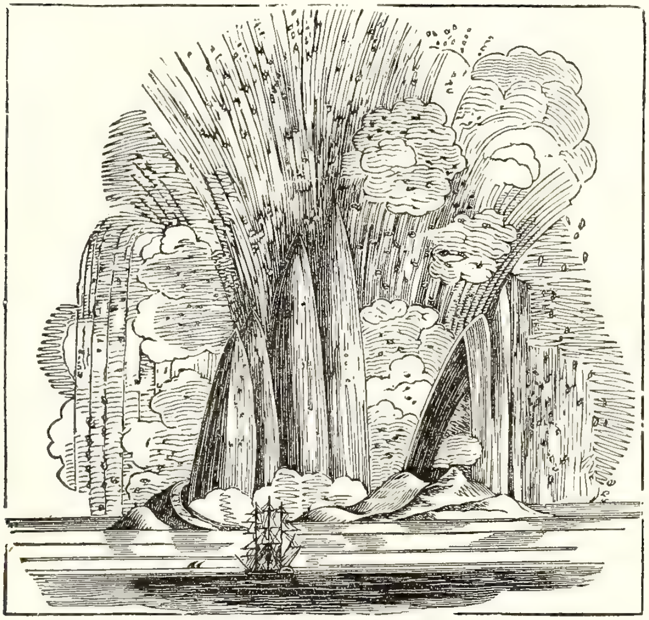
The utility of mountains is very great. They attract the clouds and vapors, which become condensed by cold, and fall in the shape of snow and rain, thus giving birth to innumerable streams, which descend and spread fertility and beauty over the surface of the earth.

Volcanic Mountain ; Vesuvius.

4. *Volcanoes.* Those mountains which send forth from their summits or sides, flame, smoke, ashes, and streams of melted matter or lava, are called *volcanoes.* The deep hollow from which these substances are emitted is called a *crater.* Some elevations merely discharge mud or air, and have received the name of *air* or *mud* volcanoes.

Many mountains present appearances, which prove that at some former time they must have been outlets of fire, although they have long ceased to have any volcanic action ; these are called *extinct* volcanoes.

From most active volcanoes, smoke issues more or less constantly ; but the eruptions, which are discharges of stones, ashes, and lava, with columns of flame, violent explosions, and concussions of the earth, happen at irregular, and sometimes at long intervals. There are about 500 volcanoes upon the surface of the earth.



Volcanic Island in the Sea.

A vast volcanic zone surrounds Greece, Italy, Germany and France. Several islands in the Grecian Archipelago, have been raised from the sea by volcanic convulsions. Etna has burnt for 3300 years, and is surrounded by extinguished volcanoes, which appear still more ancient. The Lipari islands seem to be formed chiefly of the lava and other substances which have been thrown from their volcanoes. Other parts of Europe exhibit traces of volcanoes now extinguished. Iceland has several volcanoes, of which Hecla is the most remarkable. The very bottom of the ocean in the neighborhood of this island, is sometimes convulsed, and the waves often heave up whole fields of pumice stones.

The origin of volcanoes is a subject upon which scientific men have entertained different opinions ; the most rational of these ascribe them to the burning of bitumen, fossil-wood, pit-coal, &c. set on fire by the spontaneous combustion of pyrites, a metallic substance formed of iron and sulphur.

The eruption of a volcano is a most frightful and majestic phenomenon. The first signs which announce that the invisible combat of the elements has already commenced, are violent movements, which shake the earth afar off, prolonged bellowings and subterranean thunders, which roll in the sides of the agitated mountain. Soon the smoke ascends in the shape of a black column. This is dispersed by the winds, and formed into trains of clouds. A volume of flame rises above the clouds, seeming like a pillar of fire, which rests upon the ground and threatens to set the skies in a blaze. A black smoke environs it, and from time to time intercepts the dazzling brightness. Lightnings appear to flash from the midst of the burning mass. On a sudden, the vast pillar of fire seems to fall back into the crater, and its fearful splendor is succeeded by profound darkness. But now ashes, dross, and burning stones are projected in diverging lines, and fall around the mouth of the volcano. Enormous fragments of rocks appear to be heaved against the skies. A torrent of water is often thrown out with impetuosity, and rolls hissing over the inflamed rocks. There is then raised from the bottom of the crater a liquid mass of burning lava, which fills the cavity and reaches to the very top of the opening. This is the prelude to real disasters. The liquid matter overflows, and runs down the sides of the mountain. It advances like a large and impetuous river, destroys whatever it meets within its course, flows over those obstacles which it cannot overturn, passes along the ramparts of shaken cities, invades a space of country of several leagues in extent, and transforms, in a short time, flourishing fields into a burning plain.

5. *Earthquakes.* Earthquakes are supposed to be intimately connected with volcanoes, and usually take place in volcanic countries. There have been frequent earthquakes near the borders of the Mediterranean Sea, and around the Gulf of Mexico. These dreadful phenomena often change the surface of a country, so that it is difficult to recognise it. During the convulsion, enormous gaps in the earth appear to disclose to the living the empire of the dead ; these fissures emit blue flames and deadly vapors. Vineyards descend from their heights, and settle in the midst of fields of corn ; farms and gardens quit their places and become attached to distant villages ; towns are shaken down, villages are swallowed up, mountains sink into

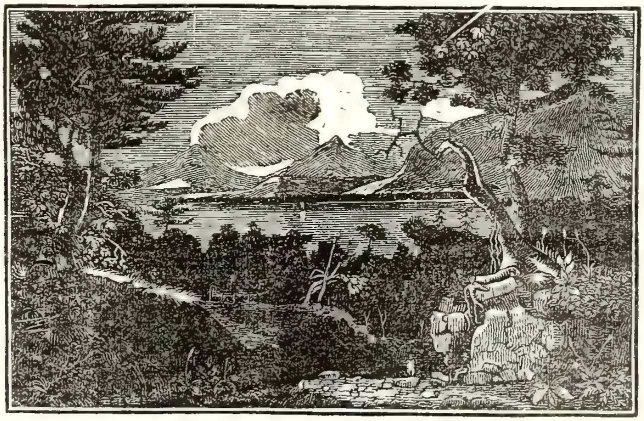
valleys, lakes disappear, and rocks and islands rear their wet summits from the bosom of the foaming sea.

6. *Valleys.* The spaces which separate one mountain from another, or one chain from another, are called *valleys*, and their lowest part is generally the bed of a river, which rises in the higher grounds, or of a lake. The term valley is also applied in a wider sense to the whole extent of country drained by a river and its branches.

7. *Plains.* The surface of the earth seldom forms a perfect level for any great extent; it has a more or less perceptible inclination, generally rising from the coasts towards the interior, and even those regions which are described as plains, have an undulating surface. In some instances there are extensive plains of great elevation, called *plateaux* or *table-lands*, the descent from which to the low countries, exhibits to the inhabitants of the latter the appearance of a long chain of mountains.

8. *Deserts*, *Steppes*, &c. There are vast tracts consisting merely of wide plains of sand or shingle, or occasionally broken only by bare rocky heights, destitute of water and vegetation, and shunned equally by man and beast; these are called *deserts.* Interspersed over these oceans of sand, we sometimes find fertile spots, watered by springs and covered with trees, called *oases.* In some places we meet with vast plains entirely destitute of trees, but bearing grasses, saline and succulent plants, and dwarfish shrubs. Those which bear nutritive herbage are called *prairies*, *llanos*, or *pampas*; while those which have a scanty, and often only a temporary vegetation, are called *steppes* or *karroos.*

V. LAKES AND RIVERS.



Winnipiseogee Lake, New Hampshire.

1. *Lakes.* An inland body of water not immediately connected with the ocean or any of its branches, is called a *lake*; but some bodies of this description are also commonly called seas. They are generally fresh, but are salt when situated in districts of which the soil contains saline matter.

2. *Classes of Lakes.* There are four sorts of lakes. (1.) The first class includes those which have no outlet and receive no running water; these are usually very small.

(2.) The second class comprises those which have an outlet, but which do not receive any running water. They are generally in elevated situations, and are often the sources of large rivers; they are formed by springs rising up into a large hollow, until the water runs out over the lowest part of the edge of the basin.

(3.) The third class embraces those lakes which receive and discharge streams of water, and is the most numerous. These lakes are the receptacles of the waters of the neighboring country, but in general have but one outlet which bears the name of the principal river that enters the lake. Such a river is said to traverse or flow through the lake, though not with strict propriety, since its current is commonly lost in the general mass of waters, and the outlet is in fact a newly formed river. The largest lakes of this class are the great lakes which lie on the northern frontier of the United States, and of which the St. Lawrence is the only outlet to the sea.

(4.) The fourth class of lakes includes those which receive without discharging rivers. The largest of these is the Caspian Sea, which swallows up several large rivers ; Lake Aral also belongs to this class. They are both salt, and this is the case with most of those which have no outlet.

The following table exhibits the dimensions of the principal lakes.

Names.	*Sq. ms.*	*Names.*	*Sq. ms.*	*Names.*	*Sq. ms.*	*Names.*	*Sq. ms.*
Caspian	120,000	Slave	13,500	Ontario	8,200	Maeler	1,600
Superior	35,000	Winnipeg	12,500	Ladoga	6,000	Wetter	1,000
Michigan	25,000	Baikal	12,000	Nicaragua	5,000	Geneva	500
Huron	20,000	Erie	10,000	Lake of the Woods	2,800	Cayuga	480
Balkash	14,400	Aral	9,000	Wenner	2,400	Constance	400.
Maracaybo	14,000	Onega	9,000	Champlain	900		

3. *Periodical Lakes.* In tropical countries the violence of the rains often forms temporary lakes, covering spaces of several hundred miles in extent. South America has large lakes which are annually formed during the rainy season, and are therefore called *periodical* lakes ; they are again dried up by the heats of a vertical sun.

4. *Lagoons.* The waters of one river or several rivers, before reaching the sea, sometimes spread out over a large surface, filling a shallow basin, which communicates with the ocean by a narrow channel. The eastern shore of the Southern States, and the coasts of the Gulf of Mexico present a great number of these basins, described under the various names of sounds, lakes, and bays ; they may be more properly and conveniently denominated *lagoons.*

5. *Springs.* Springs are small reservoirs, which receive their waters from the neighboring ground through small channels, and which are usually discharged by overflowing. The origin of springs must be referred to various causes ; among these the most common are the falling of rain and dew, and the melting of ice and snow. Mountains attract the fogs and clouds which float around them ; consequently more rain and snow fall upon them than upon the plains. The waters descend, forming innumerable streams, some in the shape of rivers, and others in the form of springs.

Spouting springs are formed by having their source considerably elevated above the aperture at which they issue. They are constructed on the same principles as artificial fountains, — the column of water being thrown upwards by the pressure from above. Hot spouting springs doubtless obey the same laws, the water being heated by volcanic masses in the earth. Boiling springs are found in various countries. Periodical, or intermitting springs, are very curious works of nature. At Como, in Italy, there is one which rises and falls every hour. There is a spring in Provence, in France, which rises eight times in an hour, and another in Languedoc, the period of whose elevation each day, is fifty minutes later than the preceding day. England furnishes examples of several springs which rise and fall with the ebb and flow of the sea.

6. *Glaciers.* Glaciers, which crown the tops of the highest mountains, have a close connexion with the origin of springs. The snows which have accumulated for whole centuries, sink down and are consolidated by alternate thaws and frosts. Thus the tops of the mountains are covered with ice ; these masses gradually extend, and the high valleys become filled. The masses continuing to increase, sometimes for a series of years, even extend to the lower parts of the mountains. They have in Switzerland filled up whole valleys, buried villages, and shut up the pass between Le Valais and the Canton of Berne. The scenes which these bodies of ice present to the traveller, are various and striking ; sometimes they resemble the waves of the sea ; again they appear like mirrors of brilliant glass. Here a thousand spires glitter in the sunshine ; sometimes they assume the appearance of ruins fallen and crushed ; and again vast pyramids and obelisks are presented to the astonished beholder.

These glaciers are of essential service in furnishing to the adjacent regions, slowly and in almost a regular manner, waters, which without this congelation would be precipitated with impetuosity from the heights of the mountains, so as to overflow and devastate the countries which they now fertilize.

7. *Mineral Springs.* The water of springs always contains air and some saline ingredients. In good drinkable water the air is usually equal to about one twenty-fifth of its volume, and the saline contents form about one 6000th of its weight. Such springs are called *soft*, and answer well for domestic purposes ; when the solid ingredients exceed this quantity, the water is *hard*, and is less fitted for cooking, dissolving soap, &c. When these substances are in

such quantities as to produce very perceptible effects upon the animal system, or to show decided chemical powers in other ways, the spring becomes a *mineral water*; if the temperature of the water is above the ordinary temperature, then we have *thermal* or warm springs. Mineral waters may be, 1. acidulous; 2. chalybeate; 3. sulphureous; 4. saline. The first generally owe their sparkling appearance and acid qualities to fixed air or carbonic acid. Such are the waters of Tunbridge, in England, of Pyrmont, Spa, and Selters, in Europe, and others. The chalybeates generally contain several grains of oxide of iron, mixed with other salts, of this class are the Harrowgate springs, in England, the celebrated springs of Saratoga and Ballston, in New York, and many others in this country. Sulphureous waters owe their qualities to the presence of sulphuretted hydrogen, and some salts in which sulphuric acid is combined (sulphates); such are the fine group of sulphur springs in Western Virginia, and the waters of Aix-la-Chapelle, in Europe. Saline waters contain large quantities of different salts, such as common salt, Epsom, Glauber's salt, &c. Those which have but a small portion of the medicinal salts, are used for the manufacture of common salt, as in New York, Western Virginia, Pennsylvania, and all over the Western States. The source of the peculiar impregnation of these various waters, is the mineral beds through which they flow. The temperature of thermal waters varies from 50° or 60° to boiling point; the Hot Springs of Virginia are about 106°, those of Arkansas nearly 200°, and the Geysers of Iceland 212°, or at boiling point. Thermal waters are sometimes pure, and sometimes contain mineral ingredients. In some cases carburetted or sulphuretted hydrogen issues from the ground in great quantities, forming *blowing* or *burning springs*. The village of Fredonia, in New York, is lighted by natural gas, supplied in this manner.

8. ***Rivers.*** Rivers are natural drains, which convey to the sea that portion of the waters falling upon the earth, which does not pass off by evaporation, or go to nourish organic bodies. The sources of rivers are generally springs, or small streams, fed by the melting of snow and ice upon the mountains, or by rains.

9. ***Basin.*** The district from which the waters of a river are derived, is called its *basin*. The basin is bounded by highlands, which are sometimes mountainous, and which divide it from other basins. The water descending from the water-shed or dividing ridge collects into brooks, the brooks unite into rivulets; the rivulets united form the main trunk or river, which conveys the waters of the whole to the sea. All these descend over inclined planes, so that the lowest point of each brook is that where it joins the rivulet; the lowest point of the rivulet that where it unites with the main stream; and the lowest point in the whole system that where the river falls into the sea. These basins form important natural divisions. Those streams which empty themselves into larger streams are called the *tributaries* of the latter.

The following table shows the length of some of the principal rivers.

Principal Rivers of North America.

Names.	*Length.*	*Names.*	*Length.*	*Names.*	*Length.*	*Names.*	*Length.*
Missouri	4,400	Del Norte	2,000	Ohio	1,350	Savannah	600
Mississippi	3,000	Nelson	1,500	Kansas	1,200	Potomac	550
Arkansas	2,100	Columbia	1,500	White River	1,200	Connecticut	410
St. Lawrence	2,000	Red River	1,500	Tennessee	1,100	Hudson	324
Mackenzie	2,000	Platte	1,500	Alabama	650	Delaware	300

Principal Rivers in South America.

Names.	*Length.*	*Names.*	*Length.*	*Names.*	*Length.*	*Names.*	*Length.*
Maranon	4,500	Orinoco	1,800	St. Francisco	1,500	Xingu	1,400
La Plata	3,000	Tocantins	1,800	Paraguay	1,400	Topajos	1,300
Madeira	2,500	Ucayale	1,600				

Principal Rivers in Europe.

Names.	*Length.*	*Names.*	*Length.*	*Names.*	*Length.*	*Names.*	*Length*
Volga	2,040	Rhine	670	Tagus	580	Guadiana	420
Danube	1,710	Elbe	570	Dwina	480	Rhone	390
Don	1,080	Loire	540	Oder	450	Pruth	390
Dnieper	1,050	Vistula	500	Niemen	450	Po	375
Kemi	780	Dniester	480	Dwina, or Duna	420	Ebro	370

Principal Rivers of Africa.

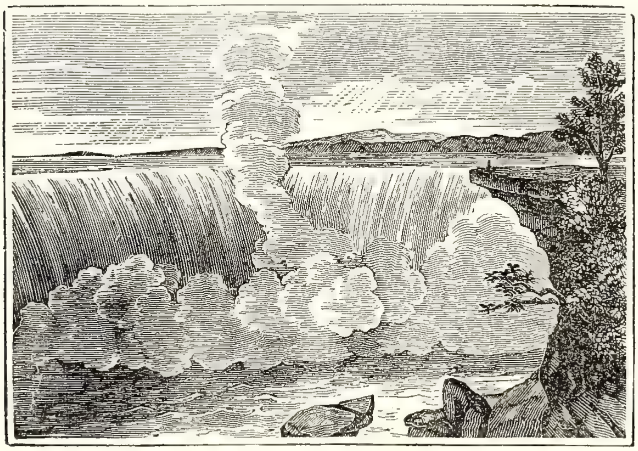
Names.	*Length.*	*Names.*	*Length.*	*Names.*	*Length.*	*Names.*	*Length.*
Nile	2,687	Senegal	950	Orange	900	Gambia	700
Niger	Unknown						

Principal Rivers of Asia.

Names.	*Length.*	*Names.*	*Length.*	*Names.*	*Length.*	*Names.*	*Length*
Yangtse Kian	3,300	Ganges	2,040	Hoang Ho	2,900	Tigris	1,000
Lena	2,470	Burrampooter	2,040	Meinam	1,600	Sihon	900
Amour	2,360	Irrawaddy	2,040	Irtish	1,500	Godavery	850
Obi	2,260	Cambodia	2,000	Indus	1,450	Kistna	800
Yenisei	2,150	Euphrates	1,820	Gihon	1,100	Nerbuddah	750

10. *Bed, Banks, &c.* The cavity or channel, in which a river flows is called its *bed*, and generally has the appearance of having been cut or worn by the current itself. The borders of the channel are called the *banks* of the river; that bank which is to the right of a person descending the stream, or facing the mouth of the river, is called the *right* bank, and the opposite is the *left* bank. The *mouth* of a river is the point, where it enters into a lake, sea, or another river; in the latter case the point of junction of the two streams is called the *confluence.*

11. *Estuary, Delta.* Many of the largest rivers mingle with the sea by means of a single outlet, in which case they often spread into wide expanses, called *estuaries* or *friths.* Others before their termination divide into several branches, embracing a triangular space of land called a delta, from its resemblance to the shape of the fourth letter of the Greek alphabet (Δ).



Falls of Niagara.

12. *Falls, Rapids, Bore.* When the bed of a river suddenly changes its level, so that the water plunges down a considerable descent, it forms a *fall*, *cascade*, or *cataract.* When its current is accelerated by a considerable inclination in its bed, or broken by a series of descents of little height, it forms *rapids.* Some streams rush with great force into the sea, carrying a large mass of water, which encounters the ocean tide, advancing in the opposite direction; the collision of the opposing currents produces a tremendous shock; this phenomenon is called a *bore.*

13. *Bars.* The opposition which takes place between the tide and the currents of rivers causes, in many instances, collections of mud or sand at their mouths, which are called *bars*, on account of the obstruction which they offer to navigation.

14. *Periodical Floods.* All rivers are more or less subject to occasional or periodical floods or inundations. Within the tropics, these floods are produced by the annual rains, and occur during the summer months, but beyond the tropics, they occur at various seasons, and in high latitudes chiefly in the spring, when the snow and ice melt. In some cases where the river banks are high, the water merely rises in the bed of the river; but where the banks are but little above the level of the river-bed, the waters overflow them, forming vast lake-like expanses.

15. *Alluvial Deposits.* Rivers which pass through low and level tracts in their annual inundations, deposit the earth, sand, and gravel brought down by their waters, on their banks, and raise them gradually above the surrounding country, while a part of the matter carried to the sea extends the coast, or forms sand or mud banks, which rise by degrees above the water. It is thus that the Ganges, Po, Nile, Mississippi, and many other rivers flow on the top of ridges, behind which are cultivated and inhabited districts, lying lower than the level of the

waters. During floods, the elevated sides are sometimes burst through, and the waters which escape stagnate in temporary lakes, or return into the main stream lower down, or travel to the sea by a separate mouth.

VI. CLIMATE, WINDS, &c.

1. *Climate.* The term climate expresses the particular combination of temperature and moisture which characterizes the atmosphere of any particular place. We may distinguish in general six different combinations or climates, which, however, are infinitely diversified in degree ; thus we have warm and moist, warm and dry, temperate and moist, temperate and dry, cold and moist, and cold and dry climates.

2. *Causes of Climate.* There are nine circumstances which determine the character of climate : 1. The sun's action upon the atmosphere ; 2. the temperature of the earth ; 3. the elevation of the ground above the level of the ocean ; 4. the general slope of the ground and its particular exposure ; 5. the position and direction of mountains ; 6. the neighborhood and relative situation of great bodies of water ; 7. the nature of the soil ; 8. the degree of cultivation and density of population ; and 9 the prevailing winds.

3. *Modifications of Climate.* The whole of America, north of latitude 55°, may be considered a frozen region. In Greenland, and around Hudson's Bay, brandy freezes during the winter. The ice and snow accumulate on the land and water, and cover a great part of the country throughout the year. The winter begins in August and continues for 9 months. In summer the heat is as great as in New England. It continues, however, for too short a period to bring grain to maturity, and the cultivation of the soil is very little practised. Vegetation is too scanty to supply the inhabitants with any considerable part of their food ; they therefore live chiefly on seals, and other productions of the sea.

Icebergs of the Polar regions

Between 55° and 45°, the climate of North America is still severe. In winter, the cold is intense ; and the snow, which begins to fall in November, remains till May. The summer advances with such rapidity, that the season of spring is scarcely known. In June the fields and forests are covered with luxuriant verdure. Grass is abundant, and in some parts grain is cultivated with success.

The temperate portions of North America may be considered as extending from 45° to 37° north latitude. These regions are prolific in grass, grain, and various kinds of fruit, as apples, pears, peaches, &c. From 37° north to the latitude of 40° south, the climate is hot, and the products are tobacco, indigo, cotton, rice, and various fruits, and plants called tropical, as oranges, lemons, figs, pine apples, sugar cane, coffee, &c. Beyond latitude 40° south, the climate again becomes cold, and at Terra del Fuego, it is severe. At the Georgian Isles in latitude 54° south, the climate appears to be frigid.

It seems, therefore, that the temperature in general becomes cold or warm as we approach or recede from the equator. Here, beneath a vertical sun, reigns perpetual summer, and nature puts on a magnificent array of vegetation. As if enchanted by these regions, birds of beautiful plumage are seen in flocks amid the ever-verdant groves ; monkeys are sporting on the trees, and lurking amid marshes and thickets, are Jaguars, Cougars, and the Jacumana. As we leave these countries and proceed to the north or south, there is a gradual change ; not only does vegetation assume a less and less exuberant character, but the trees and plants are exchanged for others. The orange gives place to the peach and vine ; these disappear, and the hardier fruits, such as apples and pears, are suspended from the trees. These disappear again, and forests of dark pine cover the land with gloom. These dwindle by degrees, until only here and there a stunted birch, or willow, the hardiest of trees, is found to endure the inhospitable climate.

But while the climate of a country thus chiefly depends upon its nearness to the equator there are other circumstances which modify or change the climate of particular places. Islands and coasts feel the influence of the sea air, which is not only moist, but is neither very hot nor very cold : it therefore softens the severity of winter, and abates the heat of summer. Consequently, places exposed to its influence are rendered more temperate.

Great accumulations of ice and snow materially affect climate. The great masses of snow and ice in the regions of Greenland impart their chilling influence to the winds, which visit us from the north, and constitute one of the causes of the greater coldness of our climate, than that of other countries in the same latitude. These cold winds, mingled with the sea breezes, which come from the Atlantic, give that harsh and chilling quality so remarkable in the easterly winds of New England.

Mountains which shelter a country from cold winds, render the climate warmer. In all parts of our country, the southern declivities of mountains, and places lying south of them, sheltered from the north winds, are well known to be much warmer. So great is the difference observed in such places, that in some cases plants, which would flourish on the southern side of a mountain, would perish on the northern.

Elevation above the level of the sea is an important circumstance in climate. The city of Mexico, which according to its latitude should be excessively hot, being elevated 7000 feet above the level of the sea, enjoys a climate of perpetual spring. Quito, which lies under the equator, has a similar climate. Within sight of this city, at an elevation of 15 or 16,000 feet, the tops of the mountains are so cold as to be covered with never changing masses of snow and ice. At the distance of a few miles, the inhabitants of Guayaquil, living on a low and level margin of the sea, experience an intense and sickly degree of heat.

Thus we have illustrated, in referring to the climate of America, most of the causes which form or modify climate generally. It may be here added, that man exercises a slow but powerful influence upon the climate of those countries, which become the subjects of his labor. By the levelling of forests and the draining of marshes, the sun is let in upon the soil, and the climate is rendered warmer, drier, and more salubrious. Such is the powerful influence of this cause alone, that our own winters are much shorter, the quantity of snow that falls is considerably smaller, and the cold far less intense than when our forefathers first settled the country. Some parts of the western country, in the United States, once esteemed exceedingly unhealthy, since the clearing up of the forests, have become remarkable for salubrity.

The climate of Europe is affected by various circumstances, rendering some parts more temperate, and others colder or warmer than might be expected from their latitude. The eastern portion of Europe, including two thirds of Russia in Europe, is rendered colder by the winds which sweep over it, chilled by the immense masses of snow and ice embosomed in the mountains of central Asia. The southern parts of Europe are rendered warmer by the hot winds which visit them from the burning deserts and plains of Africa. The extremes both of heat and cold are diminished in those countries which border upon the Atlantic, by the constant action of the sea air. These appear to be the three great causes, which modify the climate of Europe, and render it so different in some parts, from what it is in others of the same latitude ; and so different from the climate of those portions of America, which lie in the same parallels.

There is another fact to be taken into consideration, in comparing the climate of the Atlantic part of Europe with that of the Atlantic part of North America. In Greenland, and the adjacent regions, there are immense masses of snow and ice, which accumulate from year to year, or are broken up, in the form of icebergs, sometimes reaching the tropics before they are melted. On the contrary, on the borders of Europe, such accumulations do not take place. The gulfs of Norway are almost always open, while the coast of Greenland, exactly opposite, is frequently rendered inaccessible, from fixed or floating barriers of ice.

These considerations will be sufficient to account for most of the contrasts, which we observe between our own climate, and that of the Atlantic parts of Europe. The climate of England, being surrounded by the sea, is rendered by the sea air much more temperate. The winters in that country are less extreme, than those of the southern parts of New England. Newfoundland, although surrounded by the sea, and further south than England, swept by the winds, which come from the icy regions of the north and the adjacent countries, experiences a winter so intense as almost to render it uninhabitable. Spain, Italy, and Turkey in Europe, illustrate the influence of the warm winds of Africa. Situated in the latitude of Massachusetts and New York, they produce oranges, lemons, figs, and grapes, which in our country are the products of regions at least 12 degrees further south. The difference of the climate between the eastern and western parts of Europe in the same latitude, is shown by the fact, that at Moscow, which is in the latitude of Edinburgh, the winter is so inclement, as to render every precaution necessary to guard against it, while at the latter place it is not more severe than at Boston.

4. *Seasons of the Torrid Zone.* There are only two seasons in the torrid zone; the dry and the rainy or wet. The latter prevails in the tropical regions over which the sun is vertical, and is succeeded by the dry season, when the sun retires to the other side of the equator. The rains are produced by the powerful action of a vertical sun, rapidly accumulating vapors by evaporation, which then descend in rains; this arrangement is wisely adapted to afford a shelter from the perpendicular rays of the sun. In some regions there are two rainy seasons, one of which is much shorter than the other. Nothing equals the majestic beauty of the summer in the torrid zone. The sun rises vertically; it traverses rapidly the red clouds of the east, and fills the heavens with a light, whose brightness is unobscured by a single shade. The moon shines here with a more brilliant lustre. Venus blazes with purer and more vivid rays, and the milky way glitters with augmented brightness. To all this we may add the serenity of the air, the luxuriance of vegetation, and the gigantic forms of plants and animals; all nature more grand and more animated, at the same time, that the seasons are more constant and unvarying.

5. *Seasons of the Temperate Zones.* The four seasons which we distinguish in this country, are known only in the temperate zones, which alone are blessed with the varied charms of spring and autumn, the tempered heats of summer, and the salutary rigors of winter. In the part of the temperate zone bordering on the tropics, the climate resembles that of the intertropical regions; and it is between 40° and 60° of latitude, that the succession of seasons is most regular and perceptible.

6. *Seasons of the Frigid Zones.* Beyond the 60th degree of latitude only two seasons take place; a long and severe winter is there suddenly succeeded by insupportable heats. The rays of the sun, notwithstanding the obliquity of their direction, produce powerful effects, because the great length of the days favors the accumulation of heat; in three days the snow is dissolved, and flowers at once begin to blow.

7. *Winds.* *Wind* is a current of air moving in some particular direction; the velocity and force of winds are various. The following table shows the degrees of velocity of different winds.

Velocity. —	*Name of the Wind.* —
4 or 5 miles an hour.	Gentle wind,
10 to 15	Brisk Gale,
30 to 35	High wind,
50	Storm,
80 to 100	Hurricane.

The utility of winds is very great; they purify the atmosphere, and dissipate the miasmata exhaled from marshes and stagnant waters. They raise and transport the clouds destined to fertilize the earth. Millions of seeds, furnished with little pinions, are scattered by them far and wide, thus extending the empire of vegetation. They propel a vast deal of machinery, and transport ships from pole to pole on the great highway of nations.

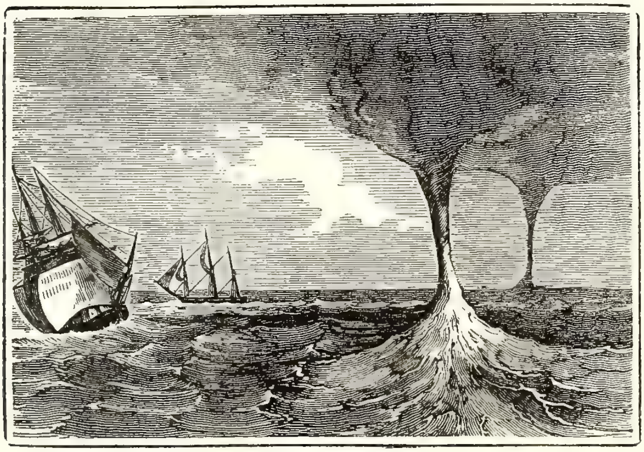
8. *Permanent, Periodical, and Variable winds.* Winds may be divided into three classes; permanent winds, or those which blow constantly in the same direction; periodical winds, or those which blow in one direction only a certain part of the year, and variable winds, which are constantly changing their direction.

9. *Trade-winds.* The permanent winds blowing constantly between, and a few degrees beyond the tropics, from east to west, are called *trade-winds.* They prevail in the Pacific, Atlantic, and parts of the Indian ocean, to about 30° each side of the equator, being on the north a little from the northeast, and on the south from the southeast. In sailing, therefore, from the Canaries to Cumana, or from Acapulco to the Philippines, the winds blow so steadily, that it is hardly necessary to touch the sails.

10. *Monsoons.* In the Indian ocean to the north of 10° S., and in the seas around Malaysia, there prevail periodical winds called *monsoons,* which blow half the year from one quarter, and the other half from the opposite direction; at the time of their shifting or *breaking up*, variable winds and violent storms prevail. On the north of the equator a southwest monsoon blows from April to October, and during the rest of the year a northeast monsoon; on the south of the equator a southeast wind prevails from April to October, and a northwest wind the other half of the year

11. *Land and Sea Breezes.* There is another kind of periodical winds, common on islands and coasts in tropical countries. During the day, when the air over the land is heated by the sun, a cool breeze sets in from the sea; this blows from about 10 A. M. to 6 P. M. At night, on the contrary, a land-breeze prevails, that is, the wind sets off from the land till about 8 A. M., when it dies away.

12. ***Hurricanes, Whirlwinds, Waterspouts,*** &c. Hurricanes are violent storms of wind, blowing with great fury, often from opposite points of the compass, and causing dreadful devastations. They are rare beyond the tropics. Whirlwinds are sometimes caused by two winds meeting, each from different directions, and then turning rapidly round upon a centre ; and sometimes by the form of mountains, which occasions gusts of wind to descend with a spiral or whirling motion. Waterspouts which are met with at sea, and are dangerous to ships, have been supposed to be formed by the raising up of water from the sea by whirlwinds. This opinion, however, seems to be doubtful ; for according to some observers, the water discharged on the bursting of a waterspout is always fresh, and therefore must have passed into the air in the form of vapor. The *simoom* of the desert of Sahara, the *samiel* of the Arabian deserts, the *chamseen* of Egypt, and the *harmattan* of Guinea, the *solano* of Spain, the *sirocco* of Italy, and the northwest wind of New South Wales, are noxious, hot winds, some of which merely produce languor, while others, if admitted into the lungs, cause suffocation.

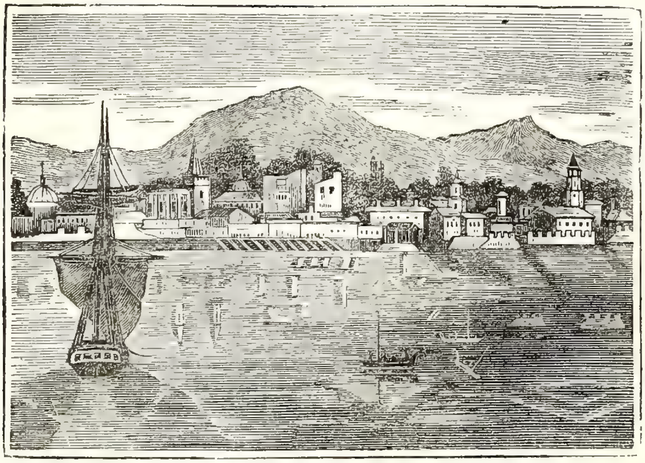


Waterspout.

13. *Clouds.* Every part of the land and water is constantly imparting to the atmosphere portions of its substance, in the form of vapor. This is condensed by cold, and formed into mists and clouds. In ascending to the summits of high mountains, the traveller sometimes passes through a zone of clouds, and beholds the extensive vapors of which it is composed stretched under his feet, like a vast plain covered with snow. He will, however, discover other clouds far above the tops of the loftiest peaks. There is no part of nature which more adorns the universe than the clouds. The beauty of their various tints, the variety of their forms, the sublimity of their masses, the grandeur of their movements, are all calculated to affect the imagination, and direct the attention to their great Author.

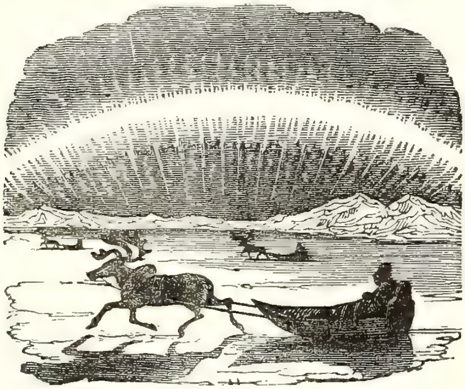
The utility of the clouds is no less obvious than their beauty. They scatter over the land the dew, rain, snow, and hail ; all of which contribute to refresh and fertilize the earth. We observe all nature to languish, when the clouds retain their stores too long ; plants fade and droop ; animals feel their strength failing them ; man himself, breathing nothing but dust, can with difficulty procure shelter from the sultry heat, by which his frame is parched and overpowered. No sooner has the water fallen from the clouds, than all living things begin to revive, the fields resume their green attire, the flowers their lively tints, animals the sportive freedom of their motions, and the elements of the air their healthful equilibrium.

The association of certain forms of clouds with the state of the weather has long been observed, and meteorologists have divided them into seven species : 1 The *cirrus*, resembling a lock of hair or a feather ; it is high and indicates a breeze ; 2. The *cumulus*, a dense cloud nearer the earth, the prognostic of settled weather ; 3. The *stratus*, a low, continuous, level sheet of cloud, indicative of serene weather ; 4. The *cirro-cumulus* consists of dense rounded masses, at different heights, also a sign of fine weather ; 5. The *cirro-stratus* is long and narrow, but changeable, often high, but descends to the earth as a soaking dense mist ; when stationary it indicates rain or snow ; 6. The *cumulo-stratus*, in which the cumulus is mixed with the cirro-stratus or cirro-cumulus ; the thunder-cloud is of this species ; 7. The *nimbus* is a shower seen in profile ; the thunder-cloud, on discharging its electricity, generally passes into the nimbus.



Fata Morgana.

14. *Mirage.* The mirage, or appearance of objects which are not actually in the horizon, or which exist there in a different situation, is one of the most remarkable of optical illusions. At sea, rocks and sands concealed under the water, appear as if they were raised above the surface. The Swedish sailors long searched for a pretended magic island, which from time to time could be descried between the isle of Aland and the coast of Upland. It proved to be a rock, the image of which was presented in the air by the mirage. At one time the English saw with terror the coast of Calais and Bologne, in France, apparently approaching the shores of their island. But the most celebrated example of mirage is frequently exhibited in the straits of Messina. The inhabitants, standing on the Italian side, perceive images of palaces, embattled ramparts, houses, and ships, and all the varied objects of towns and landscapes, in the air. This appearance is regarded by the people as the work of fairies, and is called Fata Morgana.



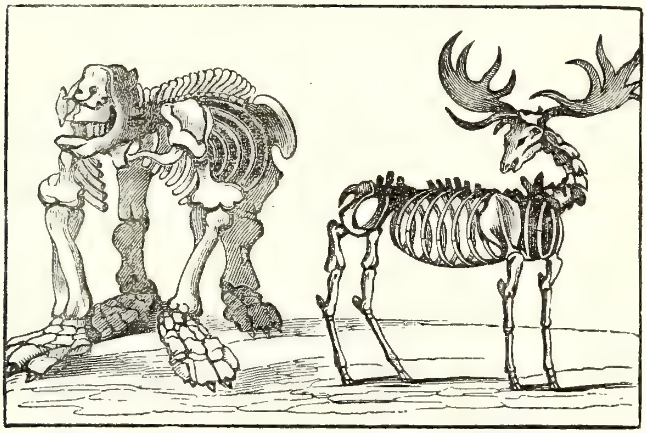
Aurora Borealis, in Lapland.

15. *Aurora Borealis.* This phenomenon is commonly called the northern lights; it is frequently to be seen in New England, and generally in the north. It usually commences two or three hours after sunset, and consists of a whitish light, sometimes appearing and disappearing, and occasionally flashing nearly up to the zenith. Previous to the war of the Revolution, these lights assumed a reddish hue, and were imagined to represent, in their bloody outlines, the marching of armies and the turmoil of battle. In more northern regions they offer a more brilliant display than in our country. Various explanations are given of these remarkable phenomena; but there is no established theory on the subject.

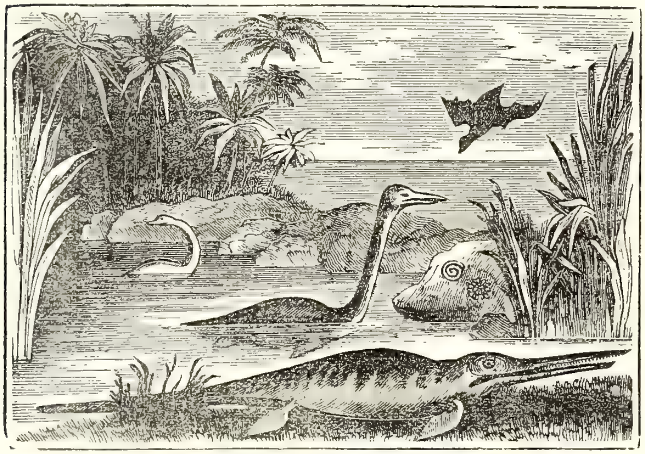
VII. STRUCTURE OF THE EARTH. MINERALS.

1. *Arrangement of the Materials.* Persons unaccustomed to examine the structure of the crust of the earth, are apt to imagine that mineral masses present a confused heap of matter, without any particular order or arrangement. But wherever water-courses, artificial excavations, or precipices, expose the structure, we find striking proofs of the agency of causes that must have acted with great uniformity over vast portions of the surface, and that have produced a general resemblance between the structure of widely distant countries. Much of the materials is arranged in beds, of different extent and thickness, but indicating the operation of one common agent. Such beds are termed *strata*, and the general fact is expressed by the term *stratification.* These strata sometimes consist of loose or slightly consolidated masses of clay or sand, and sometimes of hard, stony bodies, which are easily split in the direction of the strata. The schists or slates are an example. Wherever natural or artificial sections lay open the earth's crust to a sufficient depth, we generally find the strata resting on a different kind of rock, which has no marks of a stratified structure. Hence the distribution of rocks into two great divisions, the stratified and the *unstratified;* examples of the latter are granite, quartz, &c. All of the unstratified and some of the stratified rocks have a granular or crystaline structure, which indicate that they have formerly been melted by the action of fire; while the regular

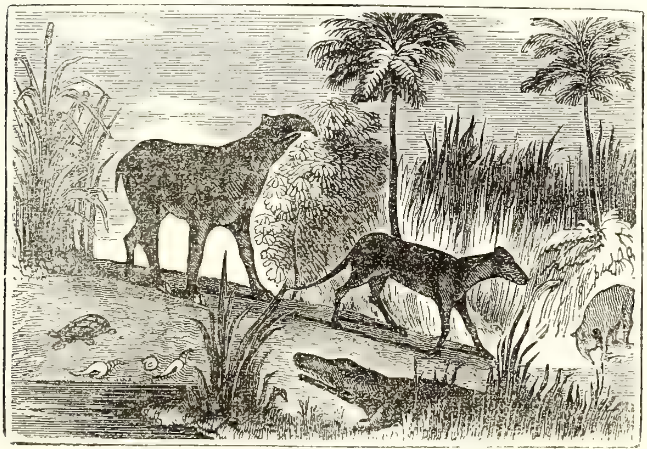
distribution into layers or strata, shows that the masses so arranged have been formed by aqueous deposits, or the gradual throwing down of earthy particles from water. When the stratified rocks are crystaline, we are led to infer that they have been, at least partially, melted by fire, since they were deposited by the waters in their existing order. All these processes may still be seen going on at the mouths of rivers, around springs, and in volcanic regions, but on a smaller scale than in former ages of the world.



Skeleton of Megatherium. *Skeleton of Fossil Elk.*



Plesiosaurus, Ichthyosaurus, Pterodactylus, Fossil Plants, &c.



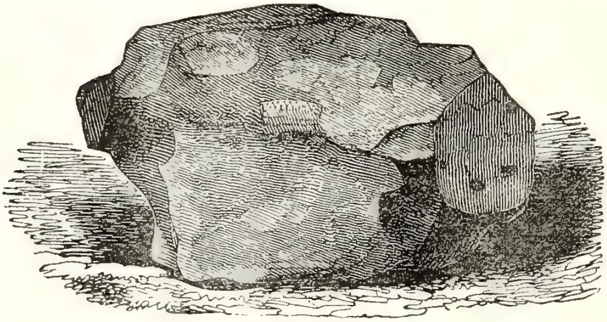
Fossil Tapir, Lophiodon, Dog, Crocodile, &c.

2. *Organic Remains.* Almost all the stratified rocks contain the remains of organic beings, animal or vegetable, or both, and it is in these relics of the past, that the geologist reads some portions, at least, of the former history of the earth, in periods long anterior to tradition, or even the existence of man on this globe. Plants, shells, and corallines, were first noticed as entering into the composition of rocks, and next the remains of fishes and of other vertebrated animals, were distinctly recognised. These relics are sometimes of marine and sometimes of fresh-water origin, and sometimes are the productions of the land. The rocks, in which they are contained, and which are now often at great depths beneath the surface, — covered by a numerous series of strata, several thousand feet in thickness, - once formed the surface of the earth's crust; the lower rocks in the series will generally be found to contain marine remains; the stratum above will, perhaps, contain fresh-water shells; above this we shall perhaps find plants or the remains of huge saurians or lizards, indicating vast swamps or marshes; higher up we shall meet with quadrupeds which occupied dry land; in this way we may show that the spot in which these discoveries are made, has been successively the bottom of the sea, the bottom of a lake or river, a marsh or swamp, high and dry land. Sometimes these remains alternate with each other, so that, for instance, the layers will present marine remains, then fresh water, then marine again, then land, then marine or fresh water, and so on; proving that the surface has been sometimes raised and sometimes depressed, so as to emerge from the ocean, become the habitation of other creatures, and again be sub

merged beneath the waters. In the lower strata of the series it is to be observed, that whole genera and species of animals are found which do not now exist in the known world, but as we rise in the series, we find some genera, and at last some species, identical with those now in existence. Yet even these show great changes to have taken place; for it is common to find the remains of tropical plants and animals beneath the surface of countries in which, on account of the coldness of the climate, they could not now live.

3. *Age of Rocks.* The stratified rocks having been deposited from water, it is obvious that the lowest in the series must have been first deposited, or in other words are the oldest formations, and that the upper beds are the more recent. No such chronological data are afforded by the unstratified rocks, though their relations to stratified materials afford just inferences respecting their true era. Thus if the latter are wholly below all the strata, we infer that they of course existed before any of the stratified rocks were deposited upon them; but if they form lines penetrating some of the strata, and overlying them, then the latter had assumed their present condition before the melted mass was poured into its actual position. Such lines of crystaline rock running through the stratified rocks, are called *veins* or *dikes*, and are of common occurrence. Superposition of strata is, then, the chief indication of the relative age of rocks; but as certain organic fossils have been found to be peculiar to certain formations, it is often easy to identify particular rock-formations by their included organized remains, and when the order of superposition cannot be readily ascertained, the nature of these remains will serve to determine the geological age of the rocks. It is on such a basis that the received geological classification of strata has been established; and geologists usually divide them into three great classes, the primary, the secondary, and the tertiary.

4. *Primary Rocks.* The *primary* strata are such as do not include any organic bodies. They are the lowest in the series of strata, and are found to repose on crystaline unstratified rocks, generally on granite, which, as far as the crust has been penetrated, has the appearance of being the general fundamental rock. The name *primitive* was originally given to these rocks, because they were supposed to have been deposited before the creation of organized bodies; but this cannot be proved, since the cause which crystalized them, or their fusion, may have occasioned the disappearance of organic remains.


Primitive Rocks.

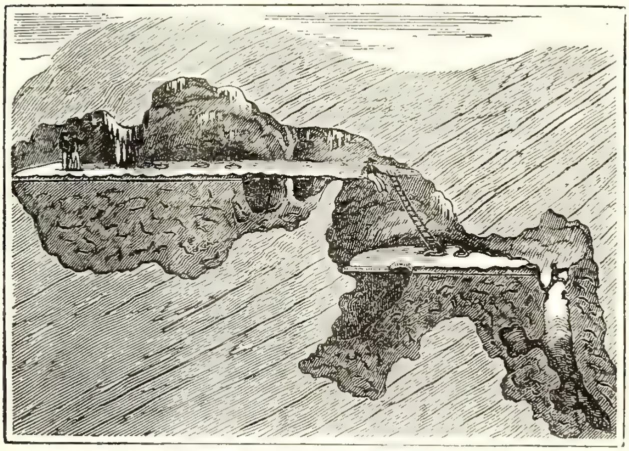
5. *Secondary Rocks.* The *secondary* strata are generally less crystaline in structure, and in their lower beds the organic remains are few, being chiefly marine productions; but these increase in number and variety in the upper beds, which end with the chalk formation. The organized bodies are chiefly marine productions, as zoophytes, crustacea, shells, and fishes; reptiles, amphibious animals, and plants, are also found in secondary strata. During the deposition of the secondary strata the land appears to have been gradually rising above the level of the waters which once covered it; and during the same period there are marks of more sudden changes or disturbances of the strata, which appear to have been owing to the forcible irruption of melted rocks from the bowels of the earth.

6. *Tertiary Rocks.* Above the cretaceous or highest secondary strata, another system of deposits appears, which has received the name of the *tertiary strata.* These have been in part deposited from fresh water, by which circumstance and by their organic remains they are distinguished from the secondary strata. There are, indeed, some fresh-water animals found in the latter, but these are rare, and the formations that include them, seem to have been made in the estuaries of great rivers. But decided alternations of fresh and salt water deposits are characteristic of the tertiary period. All the fossils of the secondary rocks belong to extinct species, and are distinct from those of the tertiary strata. In the latter, mammalia first appear, and there are a few species identical with those now existing.

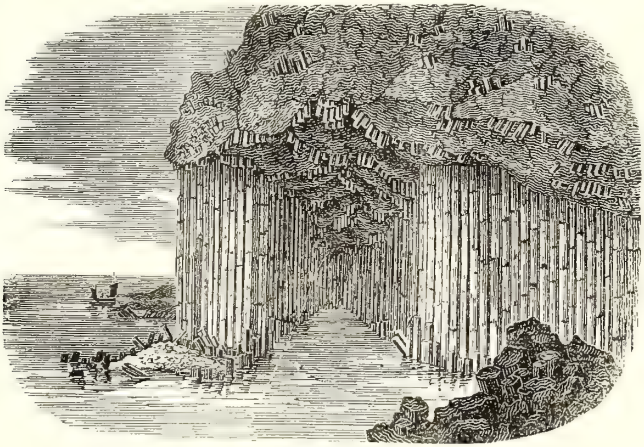
7. *Diluvial Formation.* In many countries vast tracts are covered with a confused mass of water-worn rocks, gravel, and a mixture of other fragmentary substances, which completely

bury and hide from sight the more consolidated and regular masses above described. The rocks are rounded, their sharp edges having been evidently worn off by friction, and the earthy materials have as evidently been produced by the grinding down of the rocky fragments during the same process. Everything here bears the mark of the action of powerful floods of water, which have swept away and ground up or rounded the fragments of native rock ; as this formation is the effect of some great deluge, it is called the *diluvial formation.* Sometimes the masses which have been moved in this manner from their native beds are of great size, and it is possible to trace the direction of the diluvial current by ascertaining their original situation. By this process it is shown that such a flood has swept over the United States from northwest to southeast, scattering over the surface immense numbers of those *lost rocks* or *travelers*, as they are often called by the people, or *bowlders* or *erratic blocks*, as the geologists term them, to distinguish them from rocky masses *in place*, that is, in their native beds.

8. *Caverns.* Fissures and cavities are sometimes found of great extent, forming vast caverns in the bowels of the earth, which are either empty or filled with water. Instances of these on a great scale occur in the limestone strata of many countries, especially of Carniola and the United States. The cavern of Adelsberg, in Carniola, extends several leagues in its various branches, and contains a subterranean lake and river ; the not less remarkable Mammoth cave of Kentucky has been traced several miles, and is also in limestone. Some of these caves are brilliantly ornamented with crystals of every shape and hue ; such is Weyer's cave, in Virginia, which consists of numerous large apartments and galleries filled with stalactites, or crystaline masses resembling various natural and artificial objects. The celebrated spar cave, of the Isle of Skye, is in sandstone ; there is also one in a slaty rock in the island of Thermiæ, and the great Icelandic cave of Surtshellir is in lava. This last is nearly a mile in length, and appears to have been formed in flowing lava by the disengagement of gaseous matters, as it has all the appearance of being the consequence of an enormous air-bubble, having its roof ornamented with projections of black slag. The celebrated Columnar cave on the isle of Staffa, well known as Fingal's cave, is in trap-rock.



Section of a Cavern in Europe.



Fingal's Cave, Staffa.

9. *Minerals.* Minerals are divided into four classes ; acidiferous, earthy, inflammable, and metallic.

Of the first class, we may notice limestone, calcareous spar, or carbonate of lime, that is, lime combined with carbonic acid. It is the most abundant of any known mineral substance on the earth. It is one of the principal constituents of rocks. It is also found in its pure state in immense beds or banks ; of stratified earth it forms more than half. It is also found combined with clay, and thus constitutes the various marls. It forms vast beds, in the shape of chalk, mingled with large masses of shells.

Carbonate of lime, confusedly crystalized, forms a common species of building stone in some countries. When it possesses a finer grain, it forms marble of no great value. As it becomes harder and more refined, it is better adapted for sculpture, and is then properly called marble. White statuary marble from Carrara, in Italy, is esteemed most valuable, and the purest of any. It must be observed, that some kinds of marble are primary and others secondary. There is a fine species of clouded marble found near Middlebury, Vermont. White marble is found in Stockbridge and Pittsfield, Massachusetts, and Washington, Connecticut, and in many other States. A beautiful species, variegated with green, yellow, and black, is found at Milford, near New Haven, Connecticut. In Pennsylvania, several kinds of marble are found, some of which appear to be of primary formation. On the banks of the Potomac, a fine kind of secondary marble, called Breccia, is obtained. The superb pillars which support the dome of the Representatives' chamber in the capitol at Washington, are of this species. Variegated marble is found at Thomaston, in Maine.

Of the second class, or earthy minerals, quartz may be mentioned as one of the most conspicuous. It is everywhere a common stone, and is frequently denominated white flint. Gravel and sand are composed of this mineral. Sometimes it is found in regular crystals, and is then called rock crystal. When transparent it is esteemed very beautiful ; and is used for various ornaments. These crystals, when colored, take the name of the precious stones they resemble, and great deception is sometimes practised in making them pass for real gems.

Of this class of minerals, are also the precious stones, which are almost entirely composed of argil, or pure clay. Among the most valuable of these are the ruby, sapphire, emerald, and topaz. The finest rubies and sapphires are found in India and the island of Ceylon. The most beautiful emeralds are obtained in Peru. The most valuable topazes come from Brazil.

Feldspar, also belonging to the second class of minerals, forms the base of a multitude of rocks. The whitish particles observed in granite are feldspar, which constitutes two thirds of its substance. Extensive mountains are in some instances solely composed of it. It sometimes occurs in large masses, beautifully colored, and is used for various ornaments. It is found more frequently in the mountains of Asia than in those of Europe. America affords it in large quantities.

Mica consists of thin scales of a metallic brilliancy. It forms a part of the substance of granite, and may be recognised by its sparkling surface. It is also mixed in other rocks, and constitutes a portion of almost every soil. It sometimes occurs in large plates, and is often called isinglass. It is found in Russia, Siberia, and Soongaria, in large masses, the leaves being sometimes several feet square. In Russia it is used in windows instead of glass.

Asbestos, a celebrated mineral, is chiefly found in the fissures and cavities of primitive rocks, of which it seems to be a decomposition. A detached tuft of this mineral can hardly be imagined, at first sight, not to be a bunch of fine white silk. The ancients made towels, napkins, and head-dresses of it. When these became soiled by use, they were thrown into the fire, and upon being taken out were found to be whiter than if they had been washed. This mineral abounds in Corsica, in the Uralian mountains, and in Greenland. The longest that has been found came from the Pyrenees.

Of the third class of minerals, or inflammable substances, we may first notice sulphur, which is discovered in various situations. It occurs at the mouths of volcanoes, in the form of powder, and sometimes in crystals. It is also found in veins or beds, among sulphate of lime and potter's clay. In this latter situation it is chiefly obtained. Bitumen, in a liquid state, called mineral tar or naphtha, filters through the earth and rocks, and sometimes floats on the water like oil. There are springs of it in Persia. In Parma, in Italy, it is drawn up from wells sunk in the earth for the purpose. It is called asphaltum, and gives name to Lake Asphaltites, or the Dead Sea, in Syria. In Persia, Japan, and other countries, it is used for lamps. In Auvergne, in France, glutinous bitumen covers the earth, and sticks to the feet so as to impede the traveler.

Pit coal is of two kinds, bituminous and anthracite. The former burns most freely, and is most common. Of this kind are the coal mines in England. This coal consists of bitumen united to an earthy base, and is supposed to be formed of vegetable and animal remains, long since deposited in the earth, where, by a process of nature, they have assumed their present form. Anthracite coal consists of carbon accidentally mixed with flint and iron. Of this species are the Lehigh and Schuylkill mines in Pennsylvania.

Carbon exists in nature to a great extent. It enters into the composition of a multitude of substances, and constitutes the chief ingredient of animal and vegetable matter. Common charcoal consists almost entirely of carbon. The diamond, the most precious of all minerals, is pure carbon. It has been ascertained, by repeated experiments, that the diamond is completely combustible. This, as well as the other fine gems, is found chiefly in South America and in India. It is remarkable, that the precious stones, as well as the precious metals, are confined chiefly to equatorial regions. Amber must be regarded as a mineral, though it seems to be a resinous gum, produced by trees. It is chiefly found in the countries bordering on the southern part of the Baltic Sea. It was formerly taken by the fishermen, in nets, but is now procured by digging in the hills of sand along the coast. The largest piece ever obtained weighed 13½ pounds, and is preserved in the royal museum of Berlin.

The fourth class of minerals comprehends the metals. Platina, the heaviest of these, and even more valuable than gold itself, is found in the gold mines of America, and in the Ural mountains. It has been obtained only in small quantities, but has been coined in Russia. Some gold is found in Norway and Sweden. The gold mines of Hungary are more productive; but all the gold mines of Europe are trifling in comparison with those of South America. These mines we shall notice elsewhere, as well as those of Mexico. Gold, in considerable quantities, is found in the Southern States. The islands of Borneo, of Celebes, and of Sumatra, situated under the equator, contain very rich mines of this metal. Nearly all the rivers of Africa bring down with them particles of it, mixed with the sand. Upon the coast of Guinea, it is said, that one person may pick up several ounces in a day. Silver is found in various forms, but most commonly mixed with arsenic, in the state of ore. There are mines in Siberia, Norway, Saxony, the Hartz Mountains, and other places in Europe; but the amount of silver obtained from them is small. The silver mines of Potosi, once the most prolific in the world, are now exhausted. Peru, and many other parts of South America, abound in silver. Mexico has produced annually more than 20,000,000 of dollars. Mercury is found in small quantities, both in America, and in Europe. This metal requires so little heat for its fusion, that it always remains in a liquid state in our climate. In the arctic regions it becomes solid; it is then almost as malleable as tin.

Lead is generally found mineralized by sulphur, forming an ore called galena, which is almost always mixed with iron, with antimony, and especially with silver. Lead is not found in abundance anywhere in the north of Europe or Asia. It exists in great quantities in Germany, France, and England. The lead mines of Missouri, Illinois, Iowa, and Wisconsin, are elsewhere described. Copper is an abundant mineral, and is found in all parts of the world. Tin abounds in Cornwall, in England. It is also found in Saxony, but scarcely ever in other parts of Europe. America and Africa produce little of it. It is found in Hindoostan, Malacca, and the islands of Sumatra and Japan. Iron is extensively distributed throughout the earth. The mountains of Norway and Sweden contain immense quantities of it. In the southern part of Sweden and in Missouri are mountains composed entirely of iron ore. The north of Asia abounds in iron. Southern Africa, all parts of the United States, and Canada, are also provided with ample stores of this useful metal.

VIII GEOGRAPHICAL DISTRIBUTION OF PLANTS.

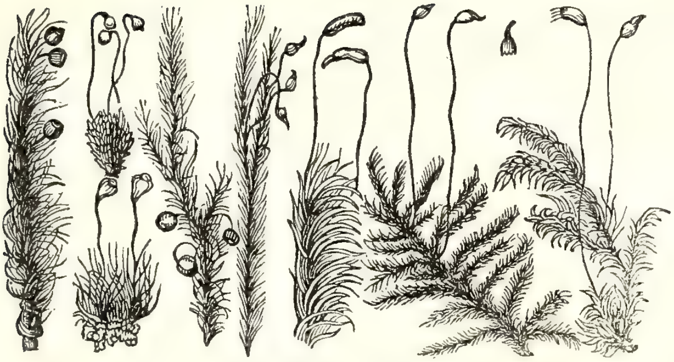
Tropical Vegetation.

1. *Diffusion of Vegetation.* The geographical distribution of vegetable forms is chiefly affected by climate, including under this head not only temperature and moisture, but degree of light, and density or rarity of the air, and by soil. We find, indeed, traces of vegetation in the depths of the ocean, in dark caverns, in the hot waters of thermal springs, on the loftiest mountains, and even in the bosom of perpetual snow; but these are comparatively rare and feeble, and the full vigor and glory of vegetable life appear only where it is unfolded under favorable influences. In regard to temperature it will be found, that the distribution of heat, rather than its degree, has the greatest influence upon vegetation; the growth of plants which require a long and moderate heat, depends on the average summer temperature; that of those which require a short but great heat, on the temperature of the warmest month, and that of those which are unable to resist a considerable cold, on the temperature of the coldest month. Thus many of the fruits of southern Europe cannot be raised to advantage in some parts of the United States, because the plants are killed by the frosts, although the length and warmth of the summer are sufficient to ripen their fruits. So maize or Indian corn and tobacco are produced in some parts of America whose winters are excessively severe, because the genial heats of a short summer are more favorable to their maturity than the longer and milder summers of Europe. Some plants require much moisture, but also need the strong light and heat of a clear sun, and will not thrive in the cloudy climates, where a serene sky is almost unknown. Sandy or siliceous soils are necessary for some vegetables, and calcareous ingredients are equally essential to others.

2. *Number and Distribution of Species.* Each plant has generally a determinate climate to which it is best adapted; there are other climates, however, in which it can be raised, though less advantageously, but beyond certain limits it ceases to grow altogether. The whole number of species at present known amounts to 44,000, but it is estimated that the total number of existing species is about 80,000.

The most simply organized plants, such as mosses, lichens, grasses, &c, which form the lowest order of the vegetable creation are the most widely diffused; the more perfect tribes are in general limited to particular regions, and, in some cases, as for example, the cedar of Lebanon, to a particular mountain or district.

3. *Vegetation of the Frigid Zones.* There are properly no plants which are peculiar to the frigid zone, because the mountains of the torrid zone, embracing every variety of climate between their base and summit, are capable of producing all the vegetables of the temperate and frigid regions. The number of vegetable species in the frigid zone is small; the trees are



Various kinds of Mosses.

few and dwarfish, and, as we advance towards the poles, finally disappear. But mosses, lichens, ferns, creeping plants, and some berry-bearing shrubs, thrive during the short summer.

4. *Vegetation of the Temperate Zones.* In the high latitudes are the pine and the fir, which retain their verdure during the rigors of winter. To these, on approaching the equator, succeed the oak, elm, beech, lime, and other forest trees. Several fruit-trees, among which are the apple, the pear, the cherry, and the plum, grow better in the higher latitudes ; while to the regions nearer the tropics belong the olive, lemon, orange, and fig, the cedar, cypress, and cork-tree.

Between 30° and 50° is the country of the vine and the mulberry ; wheat grows in 60°, and oats and barley a few degrees further. Maize and rice are the grains more commonly cultivated in lower latitudes.

5. *Vegetation of the Torrid Zone.* The vegetation of the torrid zone, where nature supplies most abundantly moisture and heat, is the most remarkable for its luxuriance and the variety of its species. The most juicy fruits and the most powerful aromatics, the most magnificent and gigantic productions of the vegetable creation, are found in the intertropical regions. There the earth yields the sugar-cane, the coffee-tree, the palm, the bread-tree, the immense baobab, the date, the cocoa, the cinnamon, the nutmeg, the pepper, the camphor-tree, &c., with so many dye-woods and medicinal plants. At different elevations of soil, the torrid zone exhibits, in addition to its peculiar forms, all the productions of the other regions of the earth.

6. *Vegetation of Northern Hemisphere.* The northern hemisphere, with which we are best acquainted, is divided by Humboldt into 6 bands, as follows : 1st band has a mean temperature above 77° Fahr. and may be considered the natural region of palms, the banana, and the coffee-tree. It extends northward in the old continent to 32° N. lat., and in the new to 23° 30′. 2d band, with a mean temperature ranging between 77° and 68°, is the proper region of the citron and its varieties. In the old continent it reaches to 37° or 38° N. lat. ; in the new to 29°. 3d band, with a mean temperature from 68° to 59°, is the true region of the olive and the vine, extending to 43° 30′ in the old world, and in eastern Asia and the new, to 32° or 33°. 4th band, with a mean temperature from 59° to 50°, produces the vine, and in perfection the oak and wheat. In Europe it extends to 52° 25′, in America and eastern Asia to 40° N. lat. 5th band, with a mean temperature from 50° to 41°, is the region of the various cerealia, and of forests of Quercus robur. In Europe it extends to 60° N. lat., in America to about 50°. 6th band, with a mean temperature from 41° to 32°, is the native region of the pine, the birch, and the willow, in its lowest parallels, and of Alpine plants, lichens, and byssi, in the higher ; it reaches to the limits of perpetual frost, extending, in Europe, to 71° N. lat., in Asia, to the Arctic circle, and, in eastern America, to about 60°.

IX. GEOGRAPHICAL DISTRIBUTION OF ANIMALS.

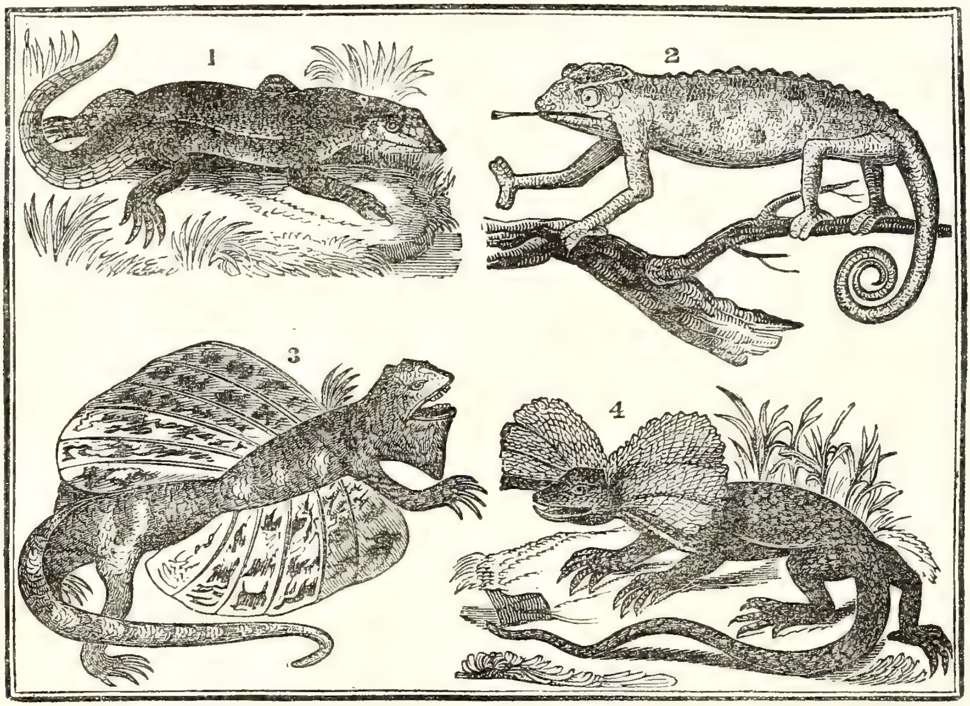
1. *Animals.* The animal kingdom presents a vast and varied field, at which we can only cast a glance. Every department of nature, the earth, air, and sea, is full of animated beings : some of them seem nearly allied to vegetables and minerals. From these, we may ascend in the scale, through an almost infinite series of existences, up to man, who constitutes the highest in the animal kingdom. Among the most remarkable animals, we may mention the coral insects which are chiefly found in the equatorial regions. These creatures, so minute as scarcely to be perceived by the naked eye, exist in the sea, in such inconceivable numbers, and labor with such activity, as to construct vast beds of coral, which at length raise their tops above the water : thus immense islands are gradually built in the bosom of the ocean, by insignificant insects.

Wherever man has not drained the marshes, and cleared the forests, insects reign with resistless sway. History has recorded several examples of towns and countries rendered uninhabitable by the multitudes of bees, wasps, and gnats. Armies and whole tribes have been compelled to fly before these feeble creatures, rendered invincible by their numbers.

In Asia and Africa, there is a remarkable animal of the ant kind, called termites, or White Ants. When they find their way into houses, nothing less hard than metal or glass escapes their ravages. Their favorite food is wood, and such is the multitude of the assailants, and such the excellence of their tools, that all the timber-work of a spacious apartment is often destroyed by them in a single night. Outwardly every thing appears as if untouched, but they destroy first the inside, and conceal their operations by stopping up the apertures with a coat of clay.

Hill of Termites. *Section of hill of Termites.*

Fishes, though generally confined to the sea, sometimes forsake their native element. In the West Indies, there is a kind of walking fish, which takes to the land, and throws itself along by jerks, in this way traveling considerable distances. The flying-fish skims through the air ; eels traverse the meadows ; and, on the coast of Coromandel, there is a kind of perch that climb palm-trees.



1. *Great Dragon.* 2. *Chameleon.* 3. *Flying Lizard.* 4. *Frilled Lizard.*

The alligator and crocodile, as well as other lizards, are mostly found in or near tropical countries. The largest serpents are also confined to these regions.

Various kinds of Birds.

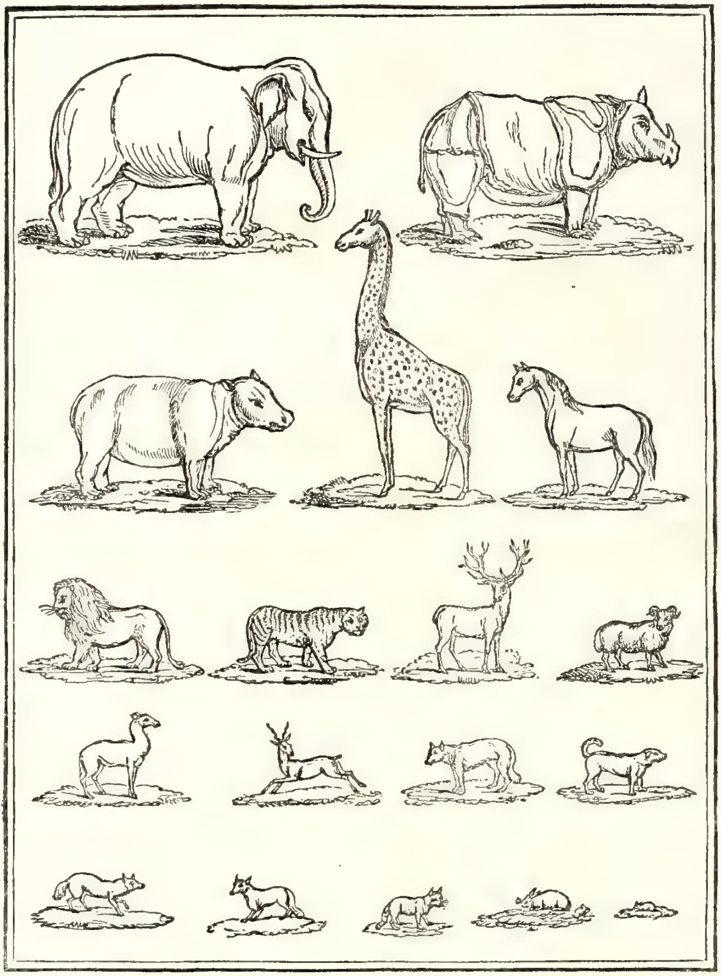
The Condor seldom forsakes the Cordilleras of Mexico, and the Andes, though he is sometimes found in the Rocky Mountains. Vultures, whose office it is to prevent contagion, by removing animal remains in hot countries, abound in tropical climates. The bird of paradise is found only in New Guinea and the adjacent regions. Parrots and paroquets are natives of warm latitudes. The ostrich is found only in Africa and Arabia. The cassowary is found only in Java and the Asiatic Islands ; the emeu in New Holland. The rhea, sometimes called the ostrich, is found in the southern part of South America. It is remarkable, that nearly all the land birds of America are of different species from those of the other continent : about 80 species of water birds common to the United States, are also found in Europe.

Among the quadrupeds which are distributed nearly over the surface of the earth, we may mention the dog, cow, sheep, goat, horse, ass, pig, and cat, in a domestic state ; in a wild state, the fox, bear, hare, rabbit, stag, deer, squirrel, rat, mouse, and ermine. The dog, the faithful companion of man, has followed him into every climate. In many countries, he is the only domestic animal, and supplies the place of the horse and ox. Toward the equator, as well as at the pole, he loses his voice, and his barking degenerates into a kind of growling noise.

Among quadrupeds confined to the cold parts of the northern hemisphere, we may enumerate the reindeer, musk ox, white bear, polar fox, otter, beaver, martin, and lynx. The camel with two humps, lives as far north as the 52d degree of north latitude, and seems to have been brought originally from Bactriana, or Great Bucharia, in Asia. The camel with one hump, or the dromedary, appears to have come from Arabia and Africa, and is used in those countries, and generally in the southern parts of Asia. The chamois prefers the mountains of the temperate zone. There are various kinds of antelopes, some of which remain in warm, and others in cold regions. The hyena and jackal live near the equator. Most of the quadrupeds of America are peculiar species, not found in the other continent.

Among the animals confined to tropical countries, we may notice apes, monkeys, and baboons. The giraffe, zebra, hippopotamus, and rhinoceros, belong to the warm regions of Africa. The elephants of Asia and Africa are different races. Those of Africa do not advance further north than the 20th degree of north latitude. The Asiatic elephant inhabits only India, China as far north as the 30th degree, and some of the Asiatic Islands, to which it has been transported by man. Africa has always been the most celebrated country for lions. They are found in nearly all parts of it. Those which rove in the burning plains south of the Atlas Mountains, are distinguished for strength and fierceness. The lions of Asia are inferior to those of Africa. They are also less abundant, and seem only to be found in the deserts of Arabia, in Hindostan, and perhaps in some of the Asiatic islands.

The royal tiger, which is the largest species, is confined to Hindostan, the Birman empire, and the islands of Ceylon and Sumatra. The true tiger is not found in Africa. The panther and leopard are found in Africa alone.



Comparative size of Quadrupeds.

2. *Number and Distribution of Species.* The number of species in the animal kingdom has been estimated at about 100,000. Each genus is generally confined to a particular region or climate, and where the same genus is found in different continents the species are different. Most of the domestic animals (the horse, cow, dog, sheep, goat, hog, and cat) thrive in nearly every variety of climate, although some of them become more or less degenerate in high latitudes. The camel and the elephant on the contrary cannot be naturalized in the colder cilmates.

3. *Zoological Regions.* The earth appears to be divided into at least eleven zoological regions or districts, of which each is the residence of a distinct set of animals ;

(1.) The Arctic region contains several tribes common to the eastern and western continents, a circumstance owing doubtless to the communication between them afforded by means of ice. (2.) The temperate regions of the eastern continent are inhabited by peculiar races, quite distinct from the kindred tribes of the (3.) corresponding zone in the American continent. The equatorial region contains four extensive tracts, widely separated from each other by seas, and each peopled by distinct races ; these are (4.) the intertropical parts of Asia ; (5.) those of Africa ; (6.) those of America ; (7.) the islands which constitute Malaysia ; and (8.) Pa pua and the surrounding islands. (9.) The extensive region of New Holland forms a distinct zoological province, inhabited by several very singular tribes ; and the southern extremities (10.) of America, and (11.) of Africa, separated from the northern temperate regions of their repective continents by the heats of the torrid zone, are each distinguished by peculiar races.

4. *Animals of Islands.* The animals of islands situated near continents are in general the same as those of the neighboring mainland. Small islands lying at a great distance from continents are nearly or quite destitute of quadrupeds, except such as appear to have been carried to them by man.

X. MAN.

1. Man, at birth the most helpless of animals and seemingly the most exposed to the accidents of nature, is yet the most universal and independent of the animal creation. Gifted with the divine powers of reason and speech, he is separated by a wide gulf from the mere animal nature ; yet physically considered he stands at the head of the animal kingdom. The human race forms but one species ; yet exhibits those physical diversities which constitute varieties.

2. ***Varieties of the Human Race.*** The physical differences which exist in the human family, are diversity of complexion ; difference of stature and shape ; varieties of form in the skull ; color and nature of the hair ; &c. Some naturalists, taking complexion as the basis of their division, distinguish the human race into three varieties ; 1. the white or Caucasian ; 2. the yellow or Mongolian ; and 3. the black or Ethiopian. Others adopt the form of the skull as the characteristic, and make five varieties ; 1. the Caucasian, including the European nations and some of the Western Asiatics, in which the head is almost round, the face oval, and the features not very prominent ; 2. The Mongolian, in which the head is almost square, the cheek-bones prominent, and the face broad and flattened ; 3. The Ethiopian or Negro, in which the head is narrow, the forehead convex, the nostrils wide, the jaws lengthened, the lower part of the face projecting, the nose spread and flat, and the lips thick ; 4. The American, in which the cheek-bones are prominent, the face broad, the forehead low, and the eyes deeply seated ; 5. And the Malay, in which the forehead is slightly arched, the upper jaw projecting, and the features in many respects approaching those of the second and fourth varieties.

Types of the Five Races of Men.

1. *Ethiopian.* 2. *American.* 3. *Caucasian.* 4. *Mongolian.* 5. *Malay.*

Of these five races the Caucasian deserves to be considered the first. Not only is the countenance more beautiful, but the intellectual and moral endowments of this race are of a higher character. Whenever they have met with the other races, they have ultimately prevailed. They have excelled all others in literature and the arts, and seem to have given birth to most of the valuable institutions of human society.

The following table exhibits Hassel's enumeration of the various races of men :

I. *Caucasian or White Race.*

1. Caucasians, Georgians, &c.	1,118,000
2. Arabians, Moors, Jews, Abyssinians, Berbers, Armenians, &c.	54,523,000
3. Hindoos, Persians, Afghans, Curds, &c.	143,353,000
4. Tartar nations ; — Turks, Turcomans, Usbecks, Kirguses, &c.	17,095,000
5. Greeks,	4,834,000
6. Arnauts,	530,000
7. Sclavonian nations ; — Russians, Poles, Lithuanians, Croats, &c.	68,255,000
8 Teutonic or German nations ; — Germans, English, Swedes, Dutch, Danes, Norwegians, &c.	60,604,000
9 Roman or Latin nations ; — French, Italian, Spanish, Walloons, Wallachians,	75,829,000
10. Celts or Caledonians, Low Bretons, Basques, &c.	10,484,000
Total,	436,625,000

II. *Mongolian, Tawny, or Olive Race.*

Mongul nations, Thibetians, &c.	35,842,000
Chinese,	256,200,000
Birmans, Siamese, Anamese, &c.	33,850,000
Japanese,	41,100,000
Mandshurs or Mantchoos,	19,320,000
Finns, Esthonians, Laplanders, &c.	2,878,000
Esquimaux, Samoides, Kamtschatdales, &c.	185,700
Total,	389,375,700

III. *Malay or Dark Brown Race.*

Malays, inhabiting the peninsula of Malacca, the island of Ceylon, and the islands in the Pacific Ocean,	32,800,000

IV. *Ethiopian, Negro, or Black Race.*

African Negroes,	62,983,300
Caffres,	5,200,000
Hottentots,	500,000
Papuans, Negroes of Australia,	950,000
Total,	69,633,300

V. *American or Copper-colored Race.*

North American Indians,	5,130,000
South American Indians,	5,140,000
Caribbees, &c.	17,000
Total,	10,287,000

Caucasians,	436,625,000
Mongolians,	389,375,700
Malays,	32,500,000
Ethiopians,	69,633,300
Americans,	10,287,000
Total,	938,421,000

3. *Languages.* Some writers have endeavored to arrange the human tribes into classes or families, according to the relations of their languages ; comprising under the name of family those nations whose languages are closely connected in grammatical structure or in the etymology of their roots. Thus the German, Swedish, Danish, Dutch, and English languages bear a close resemblance to each other, and the nations speaking those languages are considered as kindred tribes, forming a family of nations to which has been given the name of the Teutonic family. The whole number of known languages is about 2,000. Of these fifteen are spoken or understood over a wide extent of country or by a great number of individuals : viz. the Chinese, Arabic, Turkish, Persian, Hebrew, Sanscrit, German, English, French, Spanish, Portuguese, Russian, Greek, Latin, and Malay.

4. *Population of the Globe.* Very different estimates have been made of the entire population of the globe ; a regular enumeration has been made only in a few states, and the whole number of individuals in some has been calculated from a consideration of the known number of males, or of men capable of bearing arms, or of taxable polls, &c. But these data are not possessed in regard to many countries, and there are extensive regions of the world quite unknown to us. Accordingly the most trustworthy estimates of late writers differ considerably on this subject, some calculating the number of individuals of the human race at 1,000 millions, and others at 650 or 700 millions. Supposing the population of the globe to be rather less than 750 millions, the following table exhibits an estimate of its distribution in the five great divisions of the world.

		Population.
Old World or Eastern Continent,		680,000,000
Europe,	230,000,000	
Asia,	390,000,000	
Africa,	60,000,000	
New World or Western Continent,		40,000,000
Oceania,		20,000,000.

XI. POLITICAL INSTITUTIONS.

1. *Origin of Government.* Let us for a moment go back to the very infancy of society, and trace its progress in the formation of government. The ties which unite husband and wife,

parents and children, formed the family, or domestic circle. Those families that happen to live in the same neighborhood, after quarreling for a while, at last agree to live in harmony together; certain rules become established among them, which for a time are only considered customs. The union of these families does not form a state, but only a civil society. These small societies soon perceive, that their customs and observances require to be clearly expressed, and to be invested with the authority of laws. Men of superior capacity become the lawgivers of these hamlets or villages. As soon as the rights and duties of individuals become thus established, political society commences.

But this is a community without efficient government. They have laws ; but these, in order to render them effectual, require some power to execute them. The want of this power leaves society a prey to anarchy and confusion. The experience of these evils teaches mankind to establish some system, by which laws shall not only be framed, but enforced. Such a system is government, and when once established in a community, that community becomes a kingdom, empire, or republic, according to the particular form of government that is adopted.

In the earliest state of society, the patriarch or head of a family is naturally regarded as its ruler. Thus the patriarchal form is used in the infancy of society. In time of war, the strongest and most sagacious leader naturally assumes the principal authority and becomes the chief. As society advances and the nation increases in number and wealth, the chief assumes the rank and authority of a prince or king. A prince of a warlike disposition conquers the adjacent countries, and, ruling over several nations, becomes an emperor. Convinced, by experience and observation, that monarchical forms of government are not adapted to promote the highest happiness of the people, the inhabitants of a country throw off the yoke of tyranny, and frame a system, in which the authority shall be placed in the hands of persons chosen, from time to time, by themselves, thus giving rise to a free government.

2. *Government.* The government of a state is the body or bodies of men, to which are intrusted the power of making and executing the laws, the management of the public concerns, and the defence and promotion of the general welfare.

3. *Powers and Branches of Government.* The most important powers of a government are, that of making laws, or the *legislative* power ; that of interpreting or applying them to individual cases, or the *judicial* power ; and that of executing them, or the *executive* power Each of these powers is, in many states, confided to a distinct body, and the government is, therefore, divided into three independent branches, the legislature, the judiciary, and the executive.

4. *Forms of Government.* There are various forms of government differing in their character and appellation, according to the disposition of the powers of government in few or many hands, and the organization of the different branches ;

(1.) A *monarchical* government is one in which the supreme power is exercised by a single individual ; if the sovereign succeeds his predecessor by right of inheritance, it is a hereditary monarchy ; if he is chosen by the nation, or certain privileged classes, or dignitaries, it is an elective monarchy ;

(2.) When the sovereign has no law but his own will, and can dispose at pleasure of the lives, persons, and property of his subjects, the government is a *despotism ;* if the sovereign unites all powers in himself, but is bound by the laws, the government is an *absolute* monarchy ;

(3.) When the authority of the head of the state is restricted by the concurrent authority of the representatives of the nation or of certain privileged classes of the nation, the government is called a *limited* or *constitutional* monarchy ;

(4.) A *republican* government is one in which the supreme power is in the hands of the whole body of the people, or is exercised by the principal citizens ; in the former case, it is called a *democracy* or democratic republic ; in the latter an *aristocracy* or aristocratic republic ;

(5.) States are also differently denominated according to the title of the sovereign, without regard to the form of government ; thus a monarchy is styled an empire, kingdom, duchy, principality, electorate, landgraviate, &c., according as the head of the state bears the title of emperor, king, duke, prince, elector, landgrave, &c. ;

(6.) Of the popular form of government, that of the United States furnishes the leading example. This is founded upon the theory, that the true end and first object of government should be to secure the highest happiness of the people, and that the surest mode of accomplishing this end, is to intrust the government to the people. It may safely be asserted, that no country on the earth enjoys so much freedom, so equal a distribution of rights and privileges, with so little confusion and anarchy, as our own.

The other republican governments which now exist, some of them ostensibly modeled after our own, exert by no means so happy an influence. It is obvious, that a popular government must be good or bad, according to the character of the people from whom it flows. Wise laws cannot be framed by the ignorant. Free institutions cannot proceed from slaves. An upright, virtuous, and just administration cannot be expected, where the people are vicious and debased. Let us draw this lesson from the spectacle exhibited by the other republics, that a form of government, however good, will not secure the happiness of a people, unless they are wise and virtuous, and choose the wise and virtuous to administer it.

5. *Colonies.* *Colonies* are establishments founded by states, or sometimes by individuals, in foreign countries, for commercial or benevolent purposes ; and subject to the authority of the mother country. *Factories* are trading stations established in foreign countries. Colonies founded by the transportation of convicted criminals are called *penal colonies.*

6. *Towns. Cities. Villages.* The name of town or city, strictly speaking, is not given to a collection of houses on account either of its extent or population, but in consequence of certain privileges which the place enjoys. A city has a local government, at the head of which is a mayor, or other officer, to regulate its internal affairs. It has also a court, police, and system of local laws.

A town has also some privileges, such as the right to enact certain by-laws appertaining to the place ; or laying taxes for the support of the poor, for the maintenance of schools, and for various other purposes.

Villages are generally mere collections of houses. In different countries, cities and towns have different privileges, and these terms are, of course, used with various significations. It may be remarked, that the great cities of Europe surpass our own in population and the splendor of their public edifices. The cities of Africa and Asia, though many of them very populous, are inferior both to those of Europe and America, in beauty, comfort, and convenience. A large proportion of the houses are of mud ; the streets are generally narrow, gloomy, and without pavements, and the houses low, with flat roofs. In Persia, and parts of India, there are some gorgeous palaces, which have a certain degree of magnificence ; but they cannot compare with those of Europe for beauty and elegance.

Washington.

XII. RELIGION.

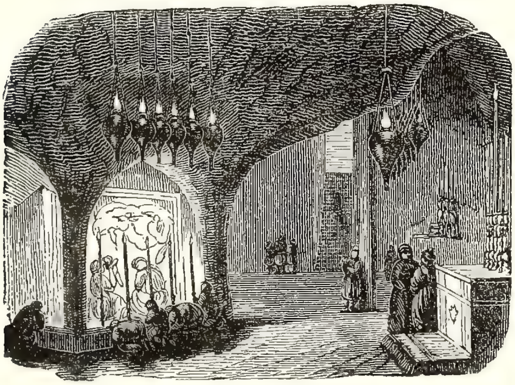
1. *Varieties of Religious Systems.* All the various religious systems, professed by different nations, may be reduced to two great classes ; the one comprising those which acknowledge the existence of a Supreme God, the Creator, Preserver, and Ruler of all things, and the other including those which do not recognise the existence of a Supreme Intelligence.

2. *Fetichism. Sabeism.* To the latter class belong the innumerable forms of superstition which prevail among ignorant and barbarous tribes. *Fetichism* is the worship of fetiches, that is, of various living or inanimate objects of nature ; the elements, rivers, fire, trees, and whatever else the credulous savage sees endowed with powers of good or evil, become the objects of gratitude or fear and worship. Different forms of fetichism prevail among the negro tribes of Africa, in Australia, Polynesia, and in some parts of Asia and America. The sacrifice of human victims often forms a part of its horrid rites. *Sabeism* is the worship of the heavenly bodies, the sun, moon, and stars ; this is an ancient form of religious faith, but has ceased to prevail very extensively.

3. *Judaism.* Judaism acknowledges no revelation, but that made to the Hebrews by Moses and the prophets. The Jews are the descendants of the ancient Hebrews, and

though dispersed over all parts of the world, they preserve their ceremonies and faith. Their sacred books are the books of the Old Testament, written originally in Hebrew ; they still expect the coming of the Messiah promised by their prophets, and observe the seventh day of the week or the Sabbath. Since their dispersion, they have ceased to offer the sacrifices prescribed by the law, and instead of their ancient priests or Levites, they have substituted Rabbins or learned men, who expound the law in the synagogues. Among the Jewish sects are the Talmudists, so called because they receive the Talmud, a collection of traditions and comments upon their sacred books ; the Caraites, who reject the absurd traditions and superstitious follies of the Talmud ; the Rechabites, who live in the oases near Mecca, and receive only the earlier books of the Old Testament ; and the Samaritans, who still offer sacrifices on Mount Gerizim.

4. *Christianity.* Although founded on Judaism, and originating among the Jews, Christianity teaches, that the Messiah, promised by the Jewish prophets, has come, and brought a new revelation to men, and that Jesus Christ is this Messiah ; the New Testament contains the revelations of this divine Teacher.



Church of the Nativity.

Among all the religions of ancient and modern times, there is none which will bear the test of a rational investigation, except Christianity. This is the only system which can pretend to a divine origin, and the only one to which mankind can look for a remedy against the various moral evils which are seen to pervade every branch of the great human family.

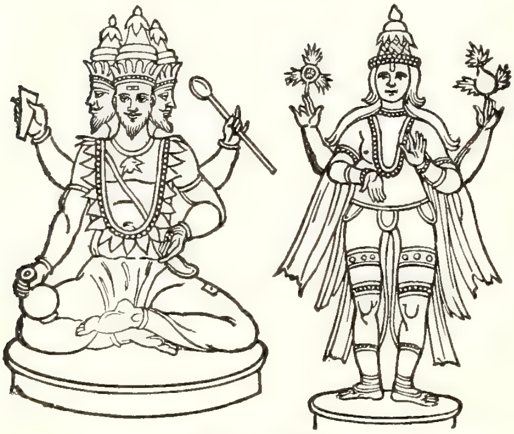
Christianity is divided into three portions . the Greek, or Christian church, which is established by law in Russia, prevails in Greece, Hungary, and part of Turkey. The Roman Catholic, Latin, or Western church, maintains the supremacy of the Pope, prevails in many parts of Europe, and has a considerable number of followers in North America. In some of the West India islands, in Mexico, Guatemala, and South America, it is the established religion.

The Protestants are those who protest against the Pope, and take the Bible of the Old and New Testament as their guide. They are divided into many sects, of which the principal are Lutherans, Methodists, Presbyterians, Episcopalians, Congregationalists, Baptists, Quakers, Unitarians, and Universalists. The Protestant religion, in its various forms, prevails in the United States, England, Scotland, Wales, Holland, and some other European countries.

5. *Mahometanism.* Islamism or Mahometanism was founded by Mahomet or Mohammed, an Arabian, who, admitting the divine mission of Moses and Jesus Christ, and acknowledging the sacred character of the Old and New Testaments, claimed to be charged with new revelations from God. Islamism teaches the immortality of the soul, a future judgment, &c. ; it prescribes prayer five times a day ; frequent ablutions ; fasting during the month Ramazan ; yearly alms, to the amount of the fortieth of one's personal property ; pilgrimage to Mecca, and some other rites ; the temples are called mosques, and divine service is performed in them every Friday.

The sacred book of the Mahometans is the Koran, an Arabic word signifying the Book ; it is written in Arabic. The principal Mahometan sects are the Sonnites, who acknowledge the authority of certain traditions and commentaries on the Koran ; the Shiites, including the Nosairians, Ismaelians, Druses, &c., who reject these traditions ; the Yezids, whose religious system consists of a mixture of Christianity and Mahometanism ; and the Wahabites, an Arab sect, which arose during the last century, and has endeavored to effect a reformation of Islamism by purging it of human corruptions and restoring its primitive simplicity

6. ***Brahmanism*** Brahmanism recognises the existence of a supreme intelligence, Brahm, but teaches, that he governs the world through the medium of numerous subordinate deities. The principal of these are Brahma, the Creator, who presides over the land; Vishnu, the Preserver, presiding over water; and Siva, the Destroyer, who presides over fire; these three persons are, however, but one God, and form the Trimourti or Hindoo Trinity. The Hindoos, who profess this faith, have several sacred books, called Vedas, written in Sanscrit, and forming their code of religion and philosophy; they teach the metempsychosis or transmigration of souls, and the immortality of the soul, and prescribe a great number of fasts, penances, and rites. Pilgrimages, voluntary death, self-torment, ablutions, &c. are practised, and the females of the two higher castes are required to burn themselves on the dead bodies of their husbands.



Brahma and Vishnu.

7. ***Buddhism.*** Buddhism resembles Brahmanism in many points; it is the prevailing religion in Thibet, Ceylon, the Birman empire, and Annam; and is professed by a portion of the people of China, Corea, and Japan. Buddhism teaches, that the universe is inhabited by several classes of existences, partly material and partly spiritual, which rise by successive transmigrations to higher degrees of being, until they arrive at a purely spiritual existence, when they are termed Buddhas. These holy beings descend from time to time upon earth in a human form, to preserve the true doctrine among men; four Buddhas have already appeared, the last under the name of Shigemooni or Godama.

8. *Nanekism.* Nanekism, or the religion of the Seiks, founded by Nanek in the fifteenth century, is a mixture of Mohammedanism and Brahmanism. The Seiks adore one God, believe in future rewards and punishments, and reject the use of images as objects of worship; they receive the Vedas and the Koran, as sacred books, but think that the Hindoos have corrupted their religious system by the use of idols.

9. *Doctrines of Confucius.* The Doctrine of the Learned, or the Religion of Confucius, is the received religion of the educated classes of China, Annam, and Japan; it uses no images, and has no priests, the ceremonies being performed by the civil magistrates. The rites, such as the worship of the heavens, stars, mountains, and rivers, genii, and souls of the departed, are esteemed merely civil institutions.

10. *Magianism.* Magianism or the Religion of Zoroaster, teaches the existence of a supreme being, Zervan or the Eternal, subordinate to whom are Ormuzd, the principle of good, and Ahriman, the principle of evil, who wage a perpetual warfare; numerous inferior deities and genii take part in the struggle, in which Ormuzd will finally prevail. The sacred books of the Magians are called the Zendavesta. The ceremonies consist chiefly in purifications, ablutions, and other rites, performed in the presence of the sacred fire, the symbol of the primeval life; hence the Magians are erroneously called fire-worshippers.

11. The number of the adherents of each religious system have been estimated as follows:

Christianity.	
Roman Catholics	139,000,000
Greek Catholics	62,000,000
Protestants	59,000,000
Total.	260,000,000

Judaism	4,000,000
Mohammedanism	96,000,000
Brahmanism	60,000,000
Buddhism	170,000,000
Other Religions	147,000,000

USE OF GLOBES.

1 ***Terrestrial Globes.*** Though the earth be not exactly a sphere, it deviates very little from the spherical form. The polar diameter is less than the equatorial by about 1334th of the latter, while the height of the highest mountain is not equal to the 2000th part of it. Upon the largest globe that is ever constructed, these differences of the earth from an exact sphere could not be perceived; and the artificial globe, therefore, is always exactly spherical.

Through the centre of the globe let a straight wire pass, this will represent the *axis*, and the points where it cuts the surface, the north and south *poles*. A circle drawn at the distance of 90 degrees from either pole is the *equator*, and another circle drawn from any point of the equator, and at right angles to it, will be the *first meridian*.

The equator and the first meridian are divided into degrees and minutes, which are numbered, beginning at the point where the circles intersect each other. The degrees upon the first meridian are numbered on both sides of the equator, and do not exceed 90. They point out the *latitude*. The degrees upon the equator are numbered completely round the circle, and extend therefore to 360. They enable us to find out the *longitude*.

The equator and first meridian are distinguished from parallels of latitude and other meridian lines, by their being graduated. They are also sometimes denoted by double lines.

We shall now suppose, that the artificial globe exactly represents the surface of the earth, and proceed to explain the lines which are commonly drawn upon the globe, besides the equator and first meridian, and to describe the apparatus usually attached to it.

In order that we might be able to find out from the globe itself, the latitude and longitude of any place, a parallel to the equator and a meridian line would require to be drawn through that place. It is impossible that such lines could be drawn through every point on the globe, and it is unnecessary, for the brass circle placed around it, enables us to find out the latitude and longitude. In this circle, which is placed at right angles to the equator, and is therefore a meridian, the globe is suspended by the axis. One of the sides of the meridian is graduated, or divided into degrees, minutes, and seconds. The globe can be turned round its axis, while the general meridian remains stationary, so that every point of the surface of the globe must pass under some point of the meridian. To find out the latitude and longitude of any place, therefore, we have only to turn the globe round till the given place be brought to the meridian. The number of degrees, minutes, &c. under which the place lies will be its latitude, and the number intercepted upon the equator its longitude.

In addition to the general meridian, *meridians* and *parallels of latitude* are usually drawn upon the globe, through every 5th or 10th degree of latitude and longitude, according to the size of the globe. These lines point out accurately the latitude or longitude of those places which are situated upon them, and give us a general idea of the situation of other places.

Besides meridians and parallels of latitude, the *ecliptic* is usually drawn upon globes, and also the *tropics* and *polar circles*. All these last are commonly drawn with double lines to distinguish them from other meridians and parallels of latitude.

The globe suspended in the general meridian, is placed upon a wooden frame. The upper surface of this frame divides the globe into two hemispheres, one superior, and the other inferior, and represents, therefore, the *rational horizon* of any place which is brought to the zenith point of the meridian. There are two notches for the meridian to slide in, by which different elevations of the pole may be exhibited. The horizon has commonly drawn upon it the points of the compass, the twelve signs of the zodiac, the months of the year, &c.

There is attached to the general meridian a *quadrant*, composed of a thin pliable plate of brass, answering exactly to a quadrant of the meridian. It is graduated, and has a notch, nut, and screw, by which it may be fixed to the brazen meridian in the zenith of any place. When so fixed, it turns round a pivot, and supplies the place of vertical circles. It is hence denominated a *quadrant of altitude*.

A small circle of brass is placed on the north pole. It is divided into 24 equal parts, and is termed an *hour-circle*. On the pole of the globe is fixed an *index*, which turns round the axis, and points out the hours upon the hour-circle.

There is also often attached to the globe a *compass*, which is placed upon the pediment of the frame, parallel to the horizon.

2. *Problems solved by the Globe.* Having thus described the globe and its apparatus, we shall now explain some of the problems that may be resolved by it.

I. *To find the latitude and longitude of any place.* We have already seen, that this is done by bringing the place to the graduated side of the general meridian; the degree of the meridian cut by the place being equal to the latitude, and the degree of the equator then under the meridian being the longitude.

II. *To find a place upon the Globe, its latitude and longitude being given.* Find the degree of longitude on the equator, and bring it to the brass meridian; then find the degree of latitude on the meridian, either north or south, and the point of the globe under that degree of latitude is the place required.

III. *To find all the places on the Globe that have the same* *latitude as a given place, suppose New York.* — Turn the globe round, and all the places that pass under the same point of the meridian as the given place does, have the same latitude with it.

IV. *To find all the places that have the same longitude or hour with a given place, as New York.* — Bring the given place, New York, to the meridian, and all places then under the meridian have the same longitude.

V. *To find the difference in the time of the day at any two given places, and their difference of longitude.* — Bring one of the places to the meridian, and set the hour-index to twelve at noon, then turn the globe till the other place come to the meridian, and the index will point out the difference of time. By allowing 15 degrees to every hour, or one degree to four minutes of time, the difference of longitude will be known. The difference of longitude may also be found without the time, in the following manner: — Bring each of the places to the meridian, and mark the respective longitudes. Subtract the one number from the other, and we obtain the difference of longitude sought.

VI. *The time being known at any given place, as New York, to find what hour it is in any other part of the world.* —Bring the given place, to the meridian, and set the index to the given hour; then turn the globe till the other place come to the meridian, and the hour at which the index points will be the time sought.

VII. *To find the distance of two places on the Globe.* — If the two places be either both on the equator or both on the same meridian, the number of degrees is the distance between them, reduced into miles, at the rate of 69⅓ to the degree, will give the distance nearly. If the places be in any other situation, lay the quadrant of altitude over them, and the degrees intercepted upon it by the two places, and turned into miles, as above, will give their distance.

VIII. *To find the antœci, periœci, and antipodes* of any given place, suppose New York.* — Bring New York to the meridian, and find by the meridian the point upon the globe, of which the latitude is as much south as that of New York is north. The place thus arrived at will be the situation of the antœci, where the hour of the day or night is always the same as at New York, and where the seasons and lengths of the days and nights are also the same, but at opposite times of the year. New York being still under the meridian, set the hour-index to 12 at noon, or pointing towards New York, then turn the globe half round, till the index points to the opposite hour, or 12 at night. The place that comes under the same point of the meridian where New York was, is where the periœci dwell, or people that have the same seasons, and at the same time, as New York, and the same length of the days and nights, but have an opposite hour, it being midnight with the one when noon with the other. Lastly, While the place of the periœci is at the meridian, count by the meridian the same degree of latitude south, and that will give the place of the antipodes of New York. They have all their hours and seasons opposite to those of New York, being noon with the one when midnight with the other, and winter with the one when summer with the other.

IX. *To find the sun's place in the ecliptic and also on the Globe at any given time.* — Find in the calendar, on the wooden horizon, the given month, and day of the month, and immediately opposite will be found the sign and degree which the sun is in on that day. Then in the ecliptic drawn upon the globe, find the same sign and degree, and that will be the place of the sun required.

X. *The time being given at any place, to find the place on the earth to which the sun is then vertical.* — Find the sun's place on the globe by the last problem; and turn the globe about till that place come to the meridian; mark the degree of the meridian over it, which will show the latitude of the required place. Then turn the globe till the given place come to the meridian, and set the index of the hour-circle to the given moment of time. Lastly, Turn the globe till the index points to twelve at noon, and the place of the earth corresponding to that upon the globe, which stands under the meridian at the point marked as before, is that which has the sun at the given time in the zenith.

XI. *To find all those places on the earth to which the sun is vertical on a given day.* — Find the sun's place in the ecliptic on the globe, as in the last problem, and bring that place to the meridian. Turn the globe round, and note all the places which pass under the same point. These will be the places sought. This problem enables us to determine what people are ascii on any given day. It is evident, that in a similar manner we may also find to what places on the earth the moon or any other planet is vertical at a given time: the place of the planet on the globe at that time being found by its declination and right ascension.

XII. *A place being given in the torrid zone, to find on what two days of the year the sun is vertical at that place.* — Bring the given place to the meridian, and note the degree it passes under. Turn the globe round, and note the two points of the ecliptic which pass under the same degree of the meridian. Then, find by the wooden horizon on what days the sun is in these two points of the ecliptic, and on these days he will be vertical to the given place.

XIII. *To find how long the sun shines without setting in any given place in the frigid zone.* — Subtract the degrees of latitude of the given place from 90, which gives the complement of the latitude, and count this complement upon the meridian from the equator towards the pole, marking that point of the meridian; then turn the globe round, and observe what two degrees of the ecliptic pass exactly under the point marked on the meridian. It is evident, that the sun will shine upon the given place without setting while it is in these, and all the points of the ecliptic that are nearer to the given place. Find, therefore, upon the wooden horizon the months, and days of the months in which the sun is in the two points in question, and the intermediate time will be that during which the sun constantly shines at the given place.

XIV. *To find how long the sun never shines upon any given place in the frigid zones.* — Count the complement of latitude towards the south, or farthest pole, and then proceed exactly as in the last problem.

XV. *To rectify the globe to the latitude of any place.* — Move the brass meridian in its groove, till the elevation of the pole above the horizon be equal to the latitude.

XVI. *To rectify the globe to the horizon of any place.*- Rectify the globe to the latitude of the place by the last problem; and then turn the globe on its axis till the given place come to the meridian. The place will then be exactly on the vertex of the globe, 90 degrees distant every way from the wooden horizon; and that horizon, therefore, will represent the horizon of the given place.

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* *Ascii, Amphiscii, Heteroscii, and Periscii.* The inhabitants of the different regions of the earth are sometimes distinguished by the ancient geographers, according to the direction of their shadows. When the sun at mid-day is vertical to any place, the inhabitants of that place were said to be *ascii*, that is, without shadow. All the inhabitants between the tropics must be ascii twice a year.

The inhabitants of the torrid zone, having the sun sometimes to the north, and sometimes to the south, will project shadows directed by turns towards either pole, and they were therefore said to be *amphiscii*, that is, having both kinds of shadows.

Those who inhabit the temperate zones were called *heteroscii*, because their shadows fall in opposite directions.

Within the polar circles the inhabitants must, for a while, project shadows in all directions, and they are therefore said to be *periscii*.

Periœci and Antœci, and Antipodes. The seasons which the inhabitants of opposite places on the earth enjoy at the same time, as well as the hours of the day at these places, being contrasted, give rise to certain distinctions with which it is also necessary to be acquainted.

Those who live under opposite meridians, at equal distances from the equator, and upon the same side of it, are termed *periœci*. They have the same seasons, but reckon at the same instant opposite hours: it being midnight with the one when mid-day with the other.

Those who live under the same meridian on opposite sides of the equator, and at equal distances from it, are called *antœci*. They have the seasons at opposite times, but reckon at the same instant the same hours.

The people who live at equal distances from the equator, and under opposite meridians, are termed *antichthones*, or *antipodes*. They have both the seasons and the hours of the day at opposite times.

XVII. *To find the bearing of one place from another, and their angle of position.* — Rectify the globe to the horizon of one of the places. Screw the quadrant of altitude to the zenith point of the meridian, and make it revolve till the graduated edge passes through the other place. Then look on the wooden horizon for the point of the compass, or number of degrees from the south, where the quadrant of altitude meets the horizon, and that will be the bearing of the latter place from the former, or the angle of position sought.

XVIII. *To find all those places on the earth to which the sun at a given time is rising or setting; also what places are then illuminated by the sun, or in darkness; and where it is noon, or midnight.* — Find the place to which the sun is vertical at the given time, and rectify the globe to its horizon, in which state the place will be in the zenith point of the globe. Then is all the hemisphere above the wooden horizon enlightened, or in daylight, while the hemisphere below the horizon is in darkness, or night; lastly, to all these places by the eastern side of the horizon, the sun is just setting, and to those by the western side, he is just rising.

XIX. *The time of a solar or lunar eclipse being given, to find all those places at which the eclipse will be visible.* — Find the place to which the sun is vertical at the given time, and rectify the globe to the horizon of that place. Then, by the last problem, it is evident, that if the eclipse be solar, a part of it at the beginning only will be seen in places which are not far above the eastern side of the horizon; while, in the rest of the upper hemisphere, the whole of the eclipse will be visible. A part of it at the end will be seen in places which are near to the lower side of the western part of the horizon. If the eclipse be lunar, the moon will be in the opposite point of the ecliptic to the sun, and vertical to that point of the earth which is opposite to the place to which the sun is vertical. The eclipse, therefore, will be visible in the lower hemisphere.

XX. *To find the beginning and end of twilight, on any day of the year, for any latitude.* — It is twilight in the evening from sunset till the sun is 18 degrees below the horizon; and in the morning from the time the sun is within 18 degrees of the horizon till the moment of his rising. Therefore, rectify the globe to the given latitude, set the index of the hour-circle to 12 at noon, and screw on the quadrant of altitude. Find the point of the ecliptic which is opposite to the sun's place, and turn the globe on its axis westward along with the quadrant of altitude, till that point cut the quadrant in the 18th degree below the western side of the horizon. The index will then show the time of dawning in the morning. Next turn the globe and quadrant of altitude towards the east, till the same opposite point of the ecliptic meet the quadrant the 18th degree below the eastern side of the horizon. The index will then show the time when twilight ends in the evening.

XXI. *To rectify the globe to the present situation of the earth.* — Rectify the globe to the horizon of the place. Its situation will then correspond to that of the earth; and, if it stand in the sun, it will be illuminated as the earth is.

Actual Position of the Eastern Continent in relation to America.

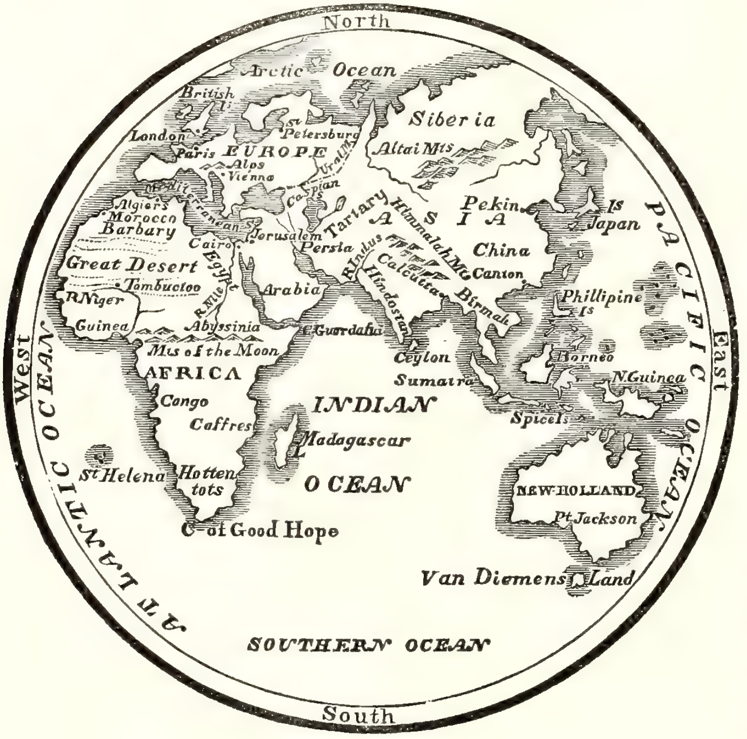
DESCRIPTIVE GEOGRAPHY.

CHAPTER I. GENERAL VIEWS OF THE GLOBE.

1. *Northern and Southern Hemispheres.* The terraqueous globe is divided by the equator into two equal parts, called the Northern and Southern Hemispheres. But the slightest glance at a map of the world will show, that there is a much greater accumulation of dry land in the former than in the latter ; recent voyages have, indeed, shown, that this inequality is not so great as was thought by geographers of the last century, large masses of land having been discovered in the Antarctic Seas, and the northern coasts of Asia and America having been shown not to extend so far north as was once supposed. The following statement will show the comparative distribution of land and water in the two hemispheres. If we divide the whole surface of the earth into 1000 parts, we shall find

	Land.	Water.
In the whole sphere,	266 parts.	734 parts.
Southern Hemisphere,	68·7 "	431·3 "
Northern Hemisphere,	197·2 "	302·8 "

The whole of Asia, Europe, and North America, much the greater part of Africa, and a part of South America, lie north of the equator, and large masses of land advance to within 25 degrees of the north pole, and considerable tracts much nearer. While only a small portion of Africa, with New Holland, the bulk of South America, and some islands, rise above the waters in the south. There is, indeed, a much larger tract about the south than around the north pole, that has not been explored, and it is now ascertained that an Antarctic continent lies in that quarter. America reaches only to 56° South Lat., Africa to 34°, and New Holland to 45°, while on the north, Asia, Europe, and America, project above the 70th parallel of latitude.



Eastern Hemisphere.

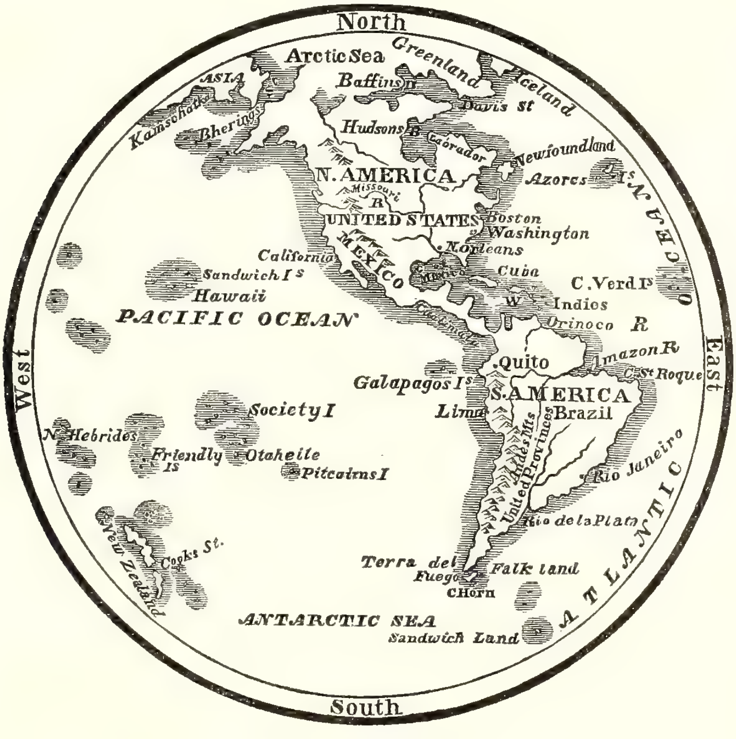
2. *Eastern and Western Hemisphere.* The two great continents of which the land is composed, are commonly so projected on maps as to form two separate hemispheres. The eastern then includes, in addition to the continental portion, New Holland and the islands around it ; and the western com-

prises most of the small islands of the Pacific with the American continent. The distribution of land and water is not less unequal in this than in the former division. Thus we have

	Water.	Land.
In the Eastern Hemisphere,	320 parts.	186 parts.
In the Western Hemisphere,	414 "	80 "

Another striking circumstance in the conformation of the two continents, is the different disposition of the land in each. In the old continent, the principal extension is to the west and east, the breadth from north to south being comparatively inconsiderable, particularly if we leave out the southern tongue of Africa ; in the new, the great extension is from north to south. In the former, we may draw continuous straight lines over land of great extent, but in the latter, in order to draw lines of much length, it will be necessary to make them winding. Thus a straight line from the Gulf of Guinea to the northwestern coast of Siberia is 9,000 miles in length ; the longest straight line we can draw on the new continent is from Cumana to Terra del Fuego, 5,400 miles. Conformable to this general extension of the land, is the direction of the great mountain chains in the two hemispheres. The Rocky Mountains, the Cordilleras, and the Andes, stretch north and south ; while starting with the Pyrenees and the Alps in Europe, we may follow an almost unbroken chain of lofty mountains, comprising the Tauro-Caucasian, Himalaya, and other Asiatic chains, to the shores of the Pacific ocean. Even the direction of the smaller portions of both continents, as their islands and peninsulas, nearly coincides with the general course of the great mountain chains.

Northern Coast.



Western Hemisphere.

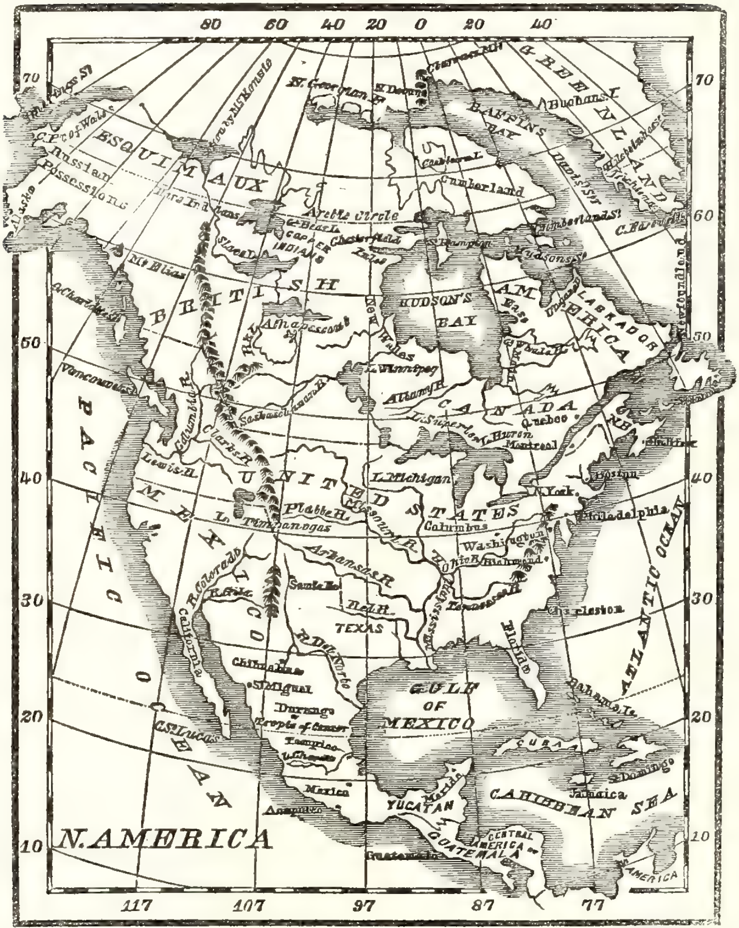
We shall now proceed to describe the different countries and states of the globe under the following heads and in the following order ;

1. North America. — 2. West Indies. — 3. South America. — 4. Europe. — 5. Africa. — 6. Asia. — 7. Oceanica.

Giving first a general description of each division, sketching its physical and political features, and pointing out its minerals, plants, animals, and inhabitants, we shall then pass to a more particular consideration of the separate parts of which it consists.

CHAPTER II. NORTH AMERICA.

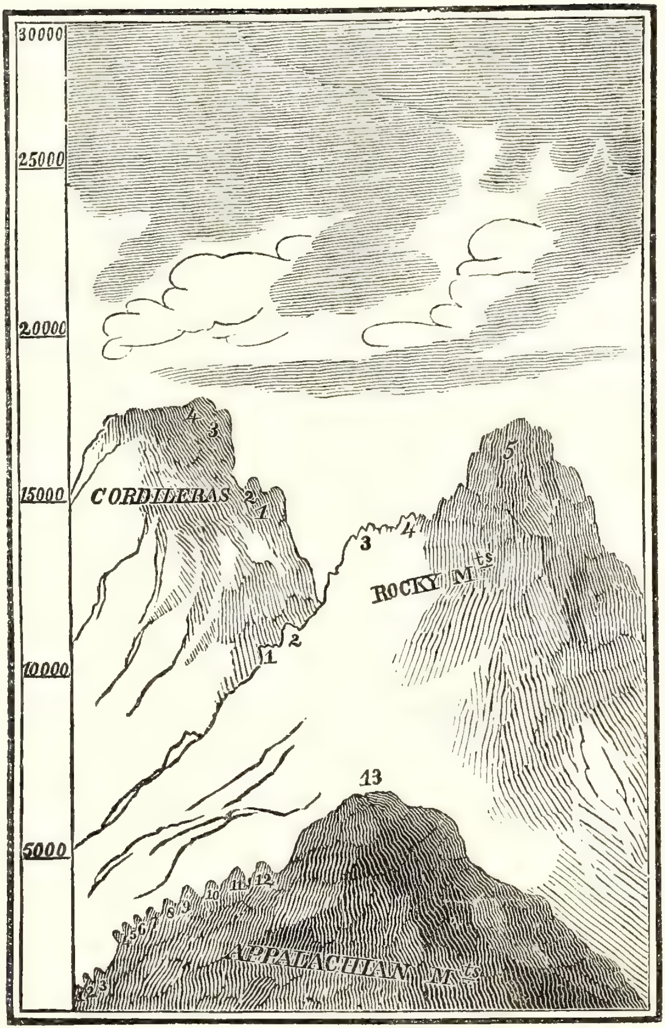
Completion of North Coast.



North America.

1. *Boundaries and Extent.* North America is bounded on the N. by the Arctic or Frozen Ocean, on the E. by the Atlantic, and on the W. by the Pacific. Behring's Strait on the Northwest separates it from Asia. The isthmus of Panama connects it with South America on the south. It has an area of about 8,000,000 square miles, with a population of about 26,000,000.

2. *Mountains.* A great mountainous system covers the western part of the continent with its numerous chains, running parallel with the coast, and extending with slight interruptions from the northwestern coast to the isthmus of Panama, where it joins the Andes. It is known in different parts of its course, under the various names of the Cordillera of Guatemala, the Cordillera of Mexico and the Rocky Mountains ; its principal peaks are Mount Fairweather (14,000 feet), and Mount St. Elias (17,000), in Russian America ; Spanish Peak (11,500), James's Peak (12,000), and Long's Peak (14,000,) in the United States ; Popocatapetl (17,884), Orizava (17,375) Iztaccihuatl (15,700), and the Nevado of Toluca (15,500), in the Mexican States ; and the volcanoes of Agua, and Fuego in Central America. The Alleghany or Appalachian system, which runs nearly parallel with the eastern coast, is the only other considerable series of mountainous chains



Comparative Height of Mountains of North America.

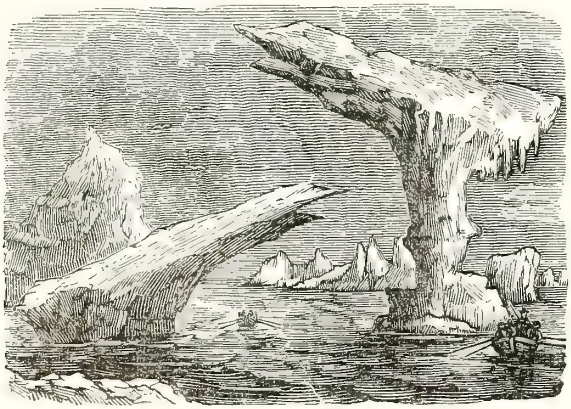
Appalachian. — 1. Mt. Holyoke, 910 feet. — 2. Cumberland, 1000 do. — 3. Mt. Tom, 1200 do. — 4. Wachusett, 3000 do. — 5. Taconic, 3000 do. — 6. Monadnock, 3254 do. — 7. Ascutney, 3320 do. — Killington Peak, 3675. — 9. Round Top, 3804. — 10. Saddle Mt., 4000. — 11. Camel's Rump, 4188. — 12. Mansfield, 4279. — 13. Mt. Washington, 6428. — Rocky. — 1. Spanish Peak, 11,500 feet. — 2. James's Peak, 12,000 do. — 3. Long's Peak, 14,000 do. — 4. Mt. Fairweather, 14,000 do. — 5. Mt. St. Elias, 17,000 do. — Cordilleras. — 1. Nevado of Toluca, 15,500 feet.–2.Iztaccihuatl, 15,700 do.–3.Orizava, 17,375 do. — 4. Popocatepetl, 17,884.

3. ***Rivers.*** The great rivers of North America rise in the central part of the continent and, flowing in different directions, pour their waters into the Arctic, Atlantic, and Pacific oceans. The Mackenzie, the Saskashawan, the St. Lawrence, the Missouri, the Mississippi, and the Columbia, are the principal streams. The Mississippi has the longest course, but the St. Lawrence discharges the greatest volume of water.

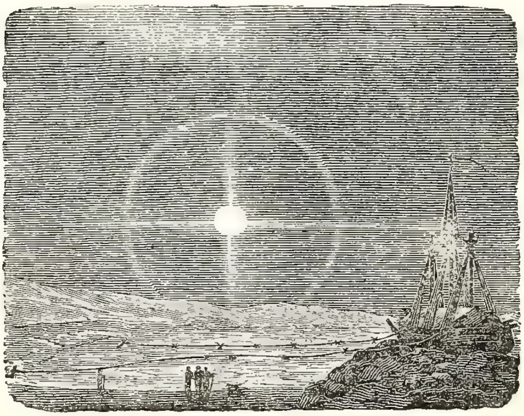
4. *Bays and Gulfs.* Baffin's Bay, a large sea lying to the west of Greenland, communicates with the Atlantic ocean on the south through Davis's Strait. Its northern coast has never been explored, but it probably communicates with the ocean to the north of Greenland, and separates that region from the continent. Barrow's Strait is an outlet on the west, which has been explored to 110° W. Lon. Its termination is unknown. Hudson's Bay is about 1,000 miles in length from north to south, by 800 in breadth. It is full of sand-banks, reefs

and islands, and its navigation is obstructed during the greater part of the year by fixed or drift ice. The *Gulf of St. Lawrence* is a large inland sea, communicating with the ocean on the north by the Strait of Belleisle, and on the south by a broad channel between Cape Ray in Newfoundland, and North Cape on Cape Breton, and by the Gut of Canso, which separates Cape Breton from Nova Scotia. Breadth from east to west 240 miles ; length 300. The *Gulf of Mexico* extends north and south, from Florida to Yucatan, 600 miles, and east and west from Cuba to the Mexican States, 700 miles. It communicates with the Atlantic on the north of Cuba by the Florida Channel, and with the Carribbean Sea on the south by Cuba Channel.

5. *Seas.* The *Arctic Sea* is supposed to extend from the northern part of America to the North Pole, but the immense masses of ice which are everywhere met with in this region, render it impossible that it should ever be fully explored. These *ice-bergs* are sometimes hundreds of miles in length, and contain mountains 400 feet in height. The shock of these enormous masses produces a tremendous crash, which warns the seaman how easily his vessel would be crushed to pieces, if it were caught between these floating islands. Frequently the wood* that drifts upon this sea, takes fire in consequence of the violent friction to which it is exposed by the movement of the ice, and smoke and flames burst forth in the midst of eternal winter. This floating wood is very frequently found charred at both ends. In winter, the intensity of the cold is continually bursting asunder the mountains of ice, and at every moment is heard the explosion of these masses, which yawn into enormous rents. In spring the movement of the ice more generally consists of the mere overturning of these masses, which lose their equilibrium in consequence of one part being dissolved before another. The fog which envelopes this melting ice is so dense, that from one extremity of a frigate it is impossible to discern the other. At all seasons, the broken and accumulated ice in the channels or gulfs, equally checks the passage of the adventurer on foot, whom it would instantly overwhelm, and of the mariner, paralyzing the movements of his vessel.



Icebergs.



Appearance of the Sun in the Polar Regions.

Numerous expeditions have been despatched in search of what is called the *Northwest Passage*, or a communication between the Atlantic and Pacific round the northern extremity of America. The most recent are those of the English under Captain Parry, who in several voyages penetrated into the Arctic Sea from Baffin's Bay, and passed the winter between the 70th and 80th parallels of latitude. The ice hindered his advancing beyond Lon. 110° W., but the discoveries of Captains Franklin, Ross, and Beechey, make it probable that there is a communication from Baffin's Bay to Behring's Strait

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* The extreme abundance of floating wood, which is brought by the sea to the shores of Labrador and Greenland, and especially to those of Iceland, and the Arctic lands situated between these two islands, forms another curiosity, that deserves to arrest our attention among these polar regions. We are assured that the masses of floating wood thrown by the sea upon the island of John de Mayen, often equal the whole of this island in extent. There are some years, when the Icelanders collect sufficient to serve them for fuel. The bays of Spitzbergen are filled with it, and it accumulates upon those parts of the coasts of Siberia that are exposed to the east, and consists of trunks of larch trees, pines, Siberian cedars, firs, and Pernambuco, and Campeachy woods. These trunks appear to have been swept away by the great rivers of Asia and America. Some of them are brought from the Gulf of Mexico, by the famous Bahama Stream, while others are hurried forward by the current, which, to the north of Siberia, constantly sets in from east to west. Some of these large trees, that have been deprived of their bark by friction, are in such a state of preservation as even to form excellent building timber. If this floating wood however, proceed from forests that are still actually in existence, another part appears to us to have a more remote origin, and to be connected with the great revolutions of the globe. We have already seen, that extensive deposits of coal, of bituminous wood, and of overturned trees, are extended indiscriminately under the surface of continents and seas. This vegetable wreck must belong to several catastrophes, to repeated devastations of the solid land.

6. *Lakes.* North America contains the largest bodies of fresh water on the face of the globe, and is not less remarkable for the number than the magnitude of its lakes. *Slave* lake, *Athapescow*, and *Great Bear* lake, are large sheets of water, which discharge themselves into the Arctic Ocean through Mackenzie's River. Lake *Winnipeg*, which is 250 miles in length by 60 in breadth, pours its waters into Hudson's Bay through Nelson's River. Between the United States and Canada lies a series of great lakes, communicating with each other by a succession of narrow channels or rivers, and finally emptying themselves through the St. Lawrence.

The largest of these, and the largest fresh-water lake in the world, is Lake *Superior*, which is 420 miles in length by 170 in breadth; having a circuit of 1,500 miles, and covering an area of 35,000 square miles. It discharges its waters through the river or strait of St. Mary, 50 miles long, into Lake Huron, which likewise receives those of Lake Michigan. Lake *Michigan* is 360 miles in length, with a mean breadth of 70 miles, and covers an area of 25,000 square miles; its surface is 600 feet above that of the ocean, and its mean depth 900 feet. Its waters are clear and abound with fish. It discharges itself into Lake Huron through the straits of Michilimackinac, 40 miles in length; in the northwestern part of the lake is the large bay, called Green Bay. The lake shores afford few good harbors in proportion to their extent. Lake *Huron* is 280 miles in length, and 90 in breadth, exclusive of the large bay on the northeastern shore, called Georgian Bay, which is about 80 miles in length by 50 in breadth. An outlet, called the River St. Clair, expands, after a course of 40 miles, into a lake of the same name, 24 miles in length, and 30 in breadth, which again contracts, and enters Lake Erie under the name of the river Detroit, 25 miles in length. Lake *Erie*, the next link in this great chain, is 270 miles in length by from 25 to 50 in breadth. The river Niagara, 36 miles long, carries its surplus waters over a perpendicular precipice 165 feet high, into Lake *Ontario*, which is about 190 miles in length, by 40 in breadth. The surface of Lake Superior is 625 feet above the level of the sea; its medium depth 900 feet; the descent to Lake Huron is by the Sault or Fall of St. Mary, 23 feet, and by rapids and the gradual descent of the river, 21 feet, giving 580 feet for the elevation of the surface of Lake Huron, whose depth is equal to that of Lake Superior. Lake Erie is much shallower, not exceeding a mean of 120 feet, and having its surface 560 feet above high water, while Lake Ontario has a depth of 500 feet, and its surface is 330 lower than that of Lake Erie. The waters of these lakes are clear and potable, and they abound with fish, among which are trout, weighing from 75 to 100 pounds, sturgeon, white fish, pike, bass, &c. They are navigable by large vessels, and a great number of steamboats navigate their waters.

7. *Table-lands.* The great Mexican table-land, upon which are situated most of the principal cities, and upon which is concentrated most of the population of the Mexican States, has an elevation of from 4,000 to 8,000 feet, and extends from Chihuahua in the north to the state of San Salvador in Central America on the south. The Alleghanian plateau or table-land, extending from New York to Alabama and Georgia, from 34° to 42° N. Lat., has an elevation of from 1,200 to 3,000 feet. It comprises the western part of Pennsylvania, Virginia and North Carolina, the northwestern part of South Carolina and Georgia, the northern part of Alabama, and the eastern part of Tennessee and Kentucky. The Central Table-land of North America, which comprises the region containing the sources of the Mackenzie, the Saskashawan, the Columbia, the Missouri, the Mississippi, the Western Colorado, and the Rio del Norte, is from 2,300 to 3,500 feet high.

8. *Plain.* The vast plain, which extends entirely across the continent from the mouth of the Mackenzie to the Delta of the Mississippi, and spreads out between the Rocky and the Appalachian Mountains, is the largest in the world, having an area of 3,250,000 square miles. It embraces the valleys of the Mackenzie, the Saskashawan, the Missouri, the St. Lawrence, and the Mississippi, and stretches from regions of perpetual ice to the tropical climate of the Gulf of Mexico. It is in this plain that the traveller meets those wide expanses, called prairies, over which the eye wanders, as over a sea, till the vision is lost in the distance, and

finds himself obliged to regulate his course by the compass, or by the observation of the heavenly bodies. They afford abundant pasture to the bison and deer, but are so destitute of wood, that the hunter is under the necessity of taking fuel with him, or in dry weather of making a fire of the dung of the bison. These magnificent plains occur on the Arkansas and Missouri, and around the Saskashawan and the Mackenzie.

8. *Minerals.* Almost all the mineral productions useful in the arts, as well as the precious metals, are found in North America, but except the gold and silver of Mexico, they have not yet been wrought in any proportion to their value and extensive distribution. The coal, lead, iron, and salt of the United States, form, with gold and silver, almost the only mineral articles that have yet been fully turned to account. The table below exhibits the principal localities of some of the more important minerals of North America.

Iron. United States (Virginia, Pennsylvania, Tennessee, New York Maryland, New Jersey, Ohio, Missouri, &c.) ; Mexico, Nova Scotia, Canada, &c.; very extensively diffused.

Lead. United States (New York, Missouri, Illinois, Iowa, Wisconsin) ; Mexico.

Gold. Mexico (Sonora and Sinaloa) ; United States (Virginia, North and South Carolina, Tennessee, Georgia) ; Central America ; Hayti.

Silver. Mexico (Guanaxuato, Zacatecas, San Luis Potosi, &c.) ; Texas ; Central America.

Copper. United States (Maryland, Pennsylvania, Missouri, Wisconsin, &c.) ; Cuba ; Mexico ; Hayti.

Tin. Mexico (Guadalaxara).

Quicksilver. Mexico.

Coal. United States (Pennsylvania, Tennessee, Kentucky, Ohio, Virginia, Alabama, Illinois, Missouri, Massachusetts, Rhode Island, &c.) ; Nova Scotia ; New Brunswick ; Texas ; Cuba, &c.

Salt. United States (New York, Pennsylvania, Virginia, Tennessee, Kentucky, Ohio, Indiana, Illinois, Arkansas, &c.) ; Nova Scotia ; Upper Canada ; Texas ; Central America ; Mexico.

Saxifrage.

9. *Vegetables.* The most northern station in which vegetation has been discovered is Melville Island, 74° 30′ N. lat. In this desolate region several vegetable species are able to maintain an existence, but they are all of a very humble growth, such as grasses, saxifrages, mosses, and lichens ; here not a tree or a bush rears its head, and the only plant of a woody structure is the Arctic willow (*Salix arctica*), which rises but six inches in height. The red snow-plant (*protococcus nivalis*), exists in these and even higher latitudes, in all its beauty, multiplying even among the snow itself, which it stains with crimson patches of considerable size.

White Spruce.

Black Spruce.

Hickory.

White Birch.

As we advance southward, vast forests of spruce-firs (*Abies alba and nigra*), beneath which grow the rein-deer moss (*Lichen rangiferinus*), and other lichens, overspread the land, and various berry-bearing shrubs and papilionaceous plants abound. The *tripe de roche*, a species of lichen, is often used as food by the hunters. Next are met the majestic poplars of Canada (*Populus Hudsonica, &c.*), birches (*Betula papyracea*, and *populifolia*), various oaks, ashes, butternuts (*Juglans cinerea*), and hickories (*Carya alba* and *amara*). These last groups

Elm.

form the transition to the Flora of the United States. The American elm may almost be called a Canadian tree, for it is in the north that this most magnificent tree of the temperate zone attains its finest proportion.

The region of the United States may be considered botanically to include the whole central tract of North America, from about 50° to 25° N. lat. This region consists of two forests, the Eastern and Western, and one unwooded tract. The eastern part was originally occupied by an unbroken forest, extending from Hudson's Bay to the Mexican Gulf, and westward far beyond the Mississippi, though here confined to the banks of the rivers. The only encroachments by prairies or unwooded tracts, are in Illinois, Indiana, and also in Ohio, in the north, and in Mississippi and Alabama, in the south.

This vast forest is composed of 140 kinds of trees, of which more than eighty reach the height of sixty feet and upwards. The most characteristic forms are the hickories, tupelos, lyriodendron or tulip-tree, the taxodium or American cypress, the locust, the coffee-tree, and the negundo. It is further remarkable for possessing numerous oaks, ashes, and pines, several magnolias, a *gordonia* (loblolly bay), a plane (sycamore or buttonwood), a liquidambar, a tree andromeda, two walnuts, three tilias, the red bay, the hackberry, &c. Within this forest are found only such shrubs and herbaceous plants as require more or less protection from the sun. This has been the principal cause of our cultivated grounds being so exclusively occupied by plants introduced from abroad.

Tulip Tree.

Loblolly Bay.

Liquidambar.

Tree Andromeda.

In the prairie region the grasses have usurped the domain of the trees and shrubs ; the northern parts present a strong analogy to the Tartarian steppes, not only in their physical aspect and numerous salines, but in their vegetation, which is gay with a profusion of flowering plants. In the south-western portion the grasses are very thinly scattered, and towards the Rocky Mountains the vegetation is so scanty, that the name of desert has been given to an extensive tract ; but there is no part destitute of rivers in all seasons, or where the cactuses and yuccas may not be occasionally met with, or even some cucurbitaceous plants and grape-vines spreading over the sands.

Prickly Pear.

The western forest seems to be less extensive than the eastern, and the species appear to be less numerous, but among them are some of gigantic dimensions. Spruces in the north, pines, maples, oaks, and poplars in the middle, and pines in the south, are the prevailing growth.

We will suppose, that we have arrived at the frontier of the British possessions, where the sugar maple (*Acer saccharinum*) pours forth its saccharine juice at the first arrival of warm weather, even before the snows have had time to melt ; the azalias add their gay and fragrant blossoms to the beauty of the opening summer, while the autumn is closed by the appearance of many kind of asters, which stud the woods and meadows with their white or violet starry flower-heads. At this point wheat and other kinds of grain, with maize, are successfully cultivated, and even tobacco, such is the degree of summer-heat, is a common field-crop.

In the United States the great features of the North American Flora are at length assumed.

Sugar Maple.

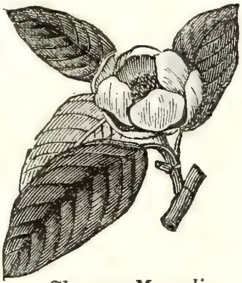
Azalia.

Aster.

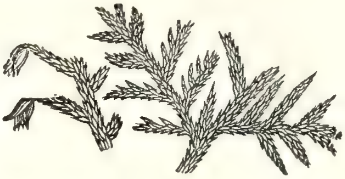
The forests consist of pines and larches unknown in Europe, of many kinds of oaks, of locust trees (*Robinia pseudacacia*), black walnuts of enormous size, hickories, and ashes, among which the noble tulip-tree (*Liriodendron tulipifera*) rears its towering head ; in the swamps grow the deciduous cypress (*Taxodium distichum*), the white cedar (*Cupressus thyoides*), certain fir-trees (*Pinus serotina* and *Abies pendula*), the rhododendron or rose-bay, the glaucous kalmia, andromedas, sarracenias, and the glaucous magnolia ; the sides of the mountains are covered with the arbor vitae (*Thuya occidentalis*), magnolias, and hemlock spruces (*Abies Canadensis*), among which spring up the arborescent araleas, the sorrel-tree (*Andromeda arborea*), and the beautiful mountain laurel (*Kalmia latifolia*) ; and finally, the undergrowth of the woods and plains contains endless species of aster, several kinds of aralea and asclepias, dwarf pyrus, and various of the exclusively American genera liatris, phlox, &c. Tobacco, maize (*Zea mais*), and wheat, are the staple objects of cultivation.

Locust Tree.

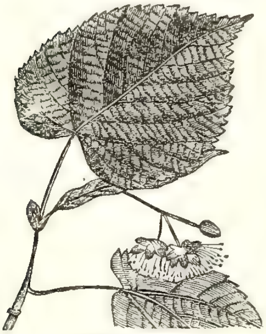
White Cedar.



Glaucous Magnolia.



Arbor Vitæ.



White Lime.

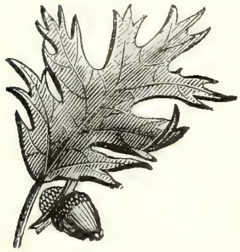
Basswood.

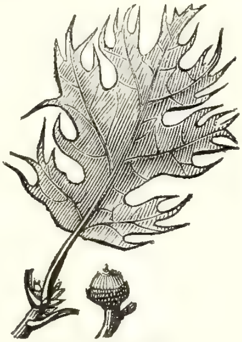
Downy Lime.

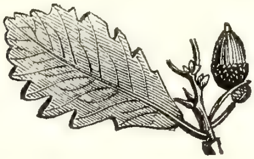
White Oak.

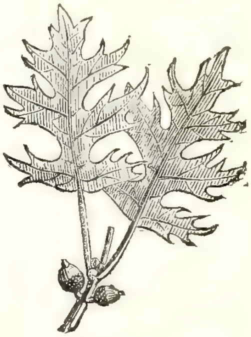
The following list of some of the most important species, with their scientific and popular names, will serve to complete this general view of the trees and shrubs of the United States.

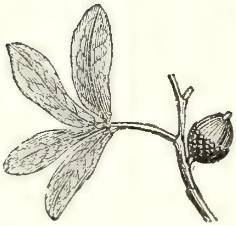
The three tilias are white lime (*T. Alba*), Basswood (*T. Americana*), and downy lime-tree (*T. pubescens*); the oaks are white oak (*Quercus alba*), which abounds particularly in the Northern and Middle States, reaching the height of 70 feet, with a diameter of six; the live oak (*Q. virens*), the most durable of our trees, and affording the most valuable ship-timber, found only near the sea in the extreme Southern States ; the scarlet oak (*Q. coccinea*), most common in the middle and southern States, and reaching the height of 80 feet; the red oak (*Q. rubra*), a more northern species ; the quercitron, black, or yellow oak (*Q. tinctoria*), one of the loftiest trees of our forest, being about 90 feet high, found all over the country except in the extreme north, yielding a brownish-yellow dye, called quercitron; the swamp white oak (*Q. prinus*), extensively diffused; the pin oak (*Q. palustris*), most common in the middle parts of the country; the post oak (*Q. stellata*), abundant in the southern States,

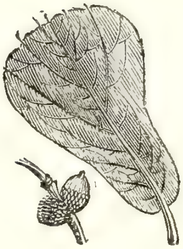

Red Oak.

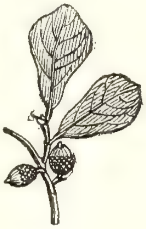

Quercitron Oak.

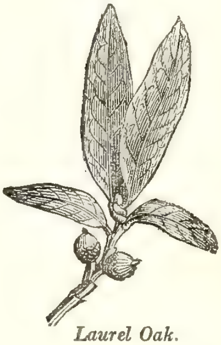

Swamp White Oak.


Pin Oak.

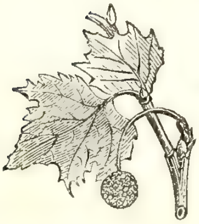

Post Oak.

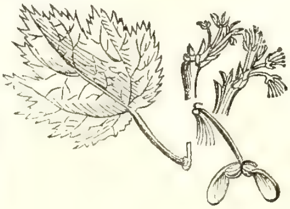

Black Jack.

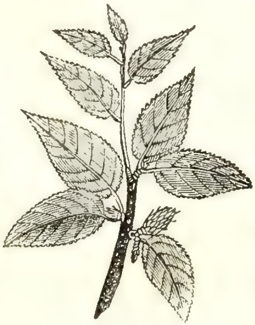

Water Oak.

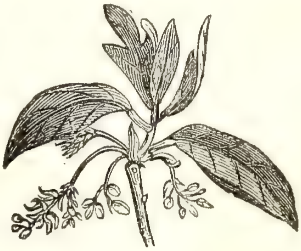

Laurel Oak.

the black jack (*Q. ferruginea*); the water oak (*Q. aquatica*); and the laurel oak (*Q. imbricaria*) Most of this family afford good timber for building, staves, machinery, &c., and the bark is generally valuable for tanning. The hickories are the shagbark (*Carya alba*), already mentioned; the pekan-nut (*C. olivæformis*), whose fruit is much admired; the shag-bark hickory (*C. sulcata*), the nutmeg hickory (*C. myristicæformis*), the pig-nut (*C. porcina*), &c; the wood of the hickories possesses great weight, tenacity, and strength, but decays quickly when exposed to heat and moisture. The walnuts are nearly allied to them; among them are the butternut (*Juglans cinerea*), and the black walnut (*J. nigra*), which takes a beautiful polish. Among the maples, beside the sugar-maple, which furnishes the beautiful bird's-eye maple for cabinet work, are the black maple (*Acer nigra*), which also yields sugar, the red maple (*A. rubrum*), whose wood, called the curled maple, takes a beautiful polish, the white maple (*A. eriocarpum*), the box-elder or ash-leaved maple (*A. negundo*), &c. The maples are handsome trees, with beautiful and peculiar leaves, which in the autumn assume various delicate and brilliant hues. The buttonwood or sycamore (*Platanus occidentalis*), is one of the largest of our forest trees, especially in the rich valleys of the West. The birches are for the most part northern trees, but the red birch (*Betula nigra*), is found in the southern States. The canoe birch (*B. papyracea*), takes its name from the use which is made of the outer bark; the canoes of the Indians and fur traders, formed of this material, are


Buttonwood.


Red Maple.


Black Birch.


Sassafras

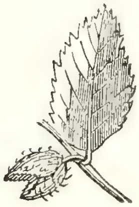
extremely light as well as strong. The wood of the black birch (*B. lenta*) is superior to that of either of the other birches, and it takes a good polish, whence it is often called the mahogany birch. The red bay (*Laurus Carolinensis*) of the southern States, attains the height of 70 feet, and its wood takes a fine polish. The sassafras (*L. sassafras*) abounds in all parts of the country, and its wood, particularly the root, has a fragrant odor and aromatic taste, and is much used for medicinal purposes. The American holly (*Ilex opaca*) is most abundant in the central regions of the country; the wood is used by cabinet makers, and the keys of piano-fortes are often made of it. The persimon (*Diospyrus Virginiana*), and the papaw (*Asamina triloba*), are confined to the southern part of the country, and are esteemed for their fruits. Several species of poplar are found in the United States, among which the Carolina poplar (*Populus angulata*) and the cotton-wood (*P. Canadensis*), are the largest; these abound chiefly on the southern and western rivers. The aspen (*P. tremuloides*) is a smaller tree. The palmetto or cabbage-tree (*Chamaerops palmetto*) is a palm growing along the Atlantic coast in the Carolinas and Georgia. The American chestnut (*Castanea Americana*) is one of our loftiest trees; its fruit though smaller, is sweeter than those of the European species. The chinquapin (*C. Pumila*) is merely a shrub, but it produces a pleasant fruit. The nut of the hazel (*Corylus Americana*) is also very delicate. The red beech (*Fagus ferruginea*) is confined to the northern parts of the United States and the British Provinces; the wood is tough and durable. The white beech (*F. Americana*) is more widely diffused. The hop-hornbeam (*Ostrya Virginica*), or iron wood, so called from its weight, is also widely diffused. The dogwood (*Cornus florida*) occurs from Massachusetts to Florida; it is a small tree, but it makes a fine appearance in the spring, when covered with a profusion of white flowers. The sour gum (*Nyssa villosa*), and the great tupelo (*N. denticulata*), are southern trees, and reach a great height; but the black gum (*N. biflora*), or tupelo, is much smaller. The American nettle-tree (*Celtis occidentalis*) abounds in the southern and western States, and grows to the height of 70 feet. The hackberry or hoop-ash (*C. crassifolia*) is peculiar to the western States, and exceeds the nettle-tree in height; its wood is used for making chair-bottoms, and by the Indians for baskets. The red mulberry (*Morus rubra*) is rare in the Atlantic, but abundant in the western States. Its fruit is agreeable, and the wood very durable. The white mulberry (*M. alba*), and the black mulberry are exotics from Italy and China, and are beginning to be cultivated for feeding silk-worms. There are five or six species of ash in the United States, among which are the white ash (*Fraxinus acuminata*), one of the most beautiful and valuable trees of the American forest, chiefly confined to the northern States and the British Provinces; the blue ash (*F. quadrangulata*) of the western States, and the black ash (*F sambucifolia*), also a

Holly.

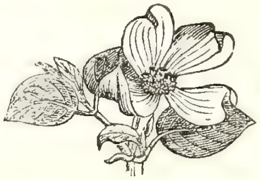
Carolina Poplar.

Palmetto.

Chestnut.



Red Beech.



Dogwood.

Nettle Tree.

White Mulberry.

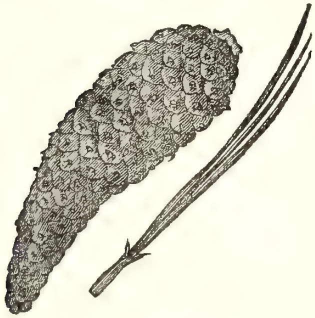
northern tree. The willows are numerous; the basket willow (*Salix viminalis*) takes its name from its economical use; the yellow willow is an exotic. The American elm (*Ulmus Americana*) towers to the height of 90 or 100 feet in the northern latitudes, but is much inferior in the southern parts of the country. The winged elm (*U. alata*), or wahoo, and the slippery elm (*U. fulva*), remarkable for its mucilaginous bark, are smaller trees. There are several very valuable pines in North America, particularly the white pine (***Pinus strobus***), a northern tree, and the long-leaved pine (***P. palustres***), which is confined to the southern districts. The former sometimes reaches the height of 170 or 180 feet, with a trunk of 6 or 7 feet in diameter, and is much used for masts, and also for the ornamental work of houses and vessels; the wood is soft, light, and free from knots. The latter does not reach more than half the height of the white pine, but is very abundant throughout the broad belt of low country from the Chesapeake to the Mississippi. The wood is much used for shipbuilding, and it furnishes great quantities of tar, pitch, turpentine, and rosin to commerce. The red or Norway pine (***P.*** *resinosa*), properly a Canadian tree, and the yellow pine, which abounds in the central districts of the United States, are also valuable trees. The New Jersey pine, (***P.*** *inops*), and the loblolly pine (***P.*** *tæda*), are less important. The pitch pine (***P.*** *rigida*) is a large and valuable tree. On the west of the Rocky Mountains, a gigantic species (***P.*** *lambertiana*), sometimes reaches the height of 200 feet, with a trunk 12 or 15 feet in diameter; there are seven other species in that region. The most important spruces have already been mentioned. The hackmatack or American larch (*Larix microcarpa*), is rare in the United States, but abundant further north; it is a magnificent tree, about 100 feet high, and the wood is highly valued. The bald cypress (*Taxodium disti-*

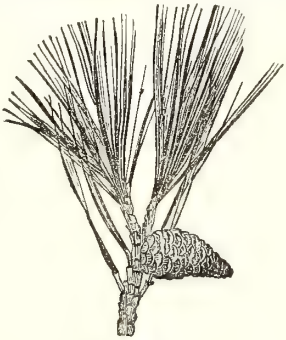
Blue Ash.

Basket Willow.

Yellow Willow.

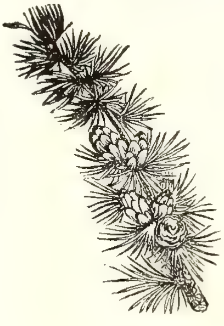
Wahoo.

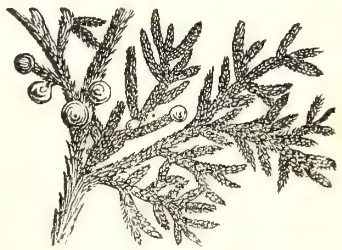

Long-leaved Pine.


Norway Pine.

New Jersey Pine.

Pitch Pine.


Hackmatack.


Red Cedar.

chum) is peculiar to the southern swamps, where it attains a height of 120 feet; the wood is light, durable, and strong, and is much esteemed for several economical purposes. The red cedar (*Juniperus Virginiana*) is also a southern tree, and the wood possesses a high character for durability, compactness, and lightness. The catalpa (*Catalpa cordifolia*), a beautiful ornamental tree, with its showy white flowers spotted with violet, is most abundant in the southern sections of the United States. The alder (*Alnus serrulata*) is common in all parts of the country. The hornbeam (*Carpinus Americana*) is common in all parts of the United States. The big laurel (*Magnolia grandiflora*) is one of the most remarkable of American trees for the majesty of its form, the magnificence of its foliage, and the beauty of its flowers. It abounds in the southern States. The cucumber tree (*M. acuminata*), which is found in the Alleghanies, is scarcely inferior to the big laurel in beauty and dimensions. The long-leaved cucumber tree (*M. auriculata*) is confined to the southern Alleghanies, and is distinguished for the size of its flowers. The umbrella trees also belong to this genus. The devil wood (*Olea Americana*) is common in the south; the wild cherry (*Prunus Virginiana*) attains to gigantic dimensions in the west, but is smaller in the east. Among the various medicinal plants of North America, may be mentioned the pippsissewa (*Chimaphila umbellata*), as a diuretic; the blood-root or puccoon (*Sanguinaria Canadensis*), as an emetic and purgative, and also as affording a fine orange-colored dye; the dogwood, which is a good substitute for the Peruvian bark; the fever-wort; the gillenias, with emetic properties; the glaucous magnolia and tulip tree; the American senna (*Cassia Marylandica*), an excellent cathartic; the spotted crane's bill (*Geranium maculatum*), as an astringent; the partridge-berry or mountain-tea (*Gaultheria procumbens*); the Indian tobacco (*Lobelia inflata*), a powerful emetic; the blue cardinal flower (*Lobelia siphilitica*) has now lost its repute in medicine; the thorough-wort or boneset (*Eupatorium perfoliatum*); the centaury (*Sabbatia angularis*), a valuable tonic bitter; the May apple (*Podophyllum peltatum*), whose root is a safe and active cathartic; the Virginia snake-root (*Aristolochia serpentaria*), extensively employed in medicine; the poke-root (*Veratrum viride*); the wild ginger (*Asarum Canadense*), having the properties of the snake-root, and the sweet-scented asarabacca (*A. Virginicum*); the sassafras and spice-wood (*Laurus benzoin*); the gold-thread (*Coptis trifolia*), a powerful bitter; the Seneca snake-root (*Polygala Senega*), much used for various purposes; the American ginseng (*Panax quinquefolium*), exported to China; the ground ivy or alehoof (*Glechoma hederacea*); St. John's wort (*Hypericum perforatum*); elecampane (*Inula Melenium*); marsh-trefoil (*Menyanthes trifoliata*); bitter sweet (*Solanum dulcamara*); the marsh rosemary (*Statice Caroliniana*).

Catalpa.

Alder.

Hornbeam.

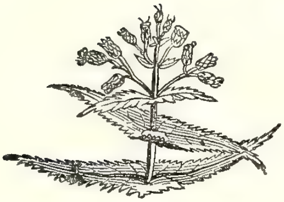
Magnolia.

Cucumber Tree.

Wild Cherry.

Blood Root.

Lobelia.


Boneset.

May Apple.

Snakeroot.

Pokeroot.

Whortleberry.

Elder.

Asarabacca.

Goldthread.

Seneca Snakeroot.

St. John's Wort.

Barberry.

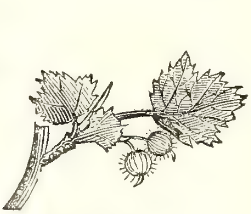
Among the wild fruits beside those already mentioned, are the Florida orange; numerous species of wild grape; the wild crab-apple (*Malus coronaria*), and Chickasaw plum; the American raspberry, blackberries, and strawberries, various whortleberries, fruits of the vacciniums (*V. Resinosum*); the cranberry; the wild gooseberry and swamp gooseberry (*Ribes cynosbati*); the American elder (*Sambucus Canadensis*); the common barberry (*Berberis vulgaris*).

Elecampane.

Marsh Trefoil.

Bitter Sweet.

Marsh Rosemary.


Gooseberry.

Some species of the herbaceous and smaller plants in the vicinity of the Arctic circle are common to Europe and Siberia, but without that region there is none that is indigenous in both continents. In the central latitudes are three avens (*Geums*), the Canadian lily (*Lilium Canadense*), several cinquefoils (*Potentilla*), the columbine (*Aquilegia Canadensis*), several lycopodiums, the Parnassus grass (*Parnassia Caroliniana*), various saxifrages, &c. Among the gramineous plants the carices predominate in exposed marshes. As we proceed south (between 45° and 35° of lat.), we find the *Cercis Canadensis* conspicuous for its purple blossoms, the wax myrtle (*Myrica cerifera*), the Jersey tea (*Ceanothus Americanus*), several species of sumach (*Rhus*), and andromeda, the leather-wood (*Dirca palustris*), the divining-rod or witch-hazel (*Hamamelis Virginica*), noted for its pretended uses in discovering springs and mineral veins, and which puts forth its flowers at the very close of the season, &c. forming the underwood, and various climbing plants now make their appearance, as grapes, clematis, various species of Smilax (brier), &c. Among the herbaceous plants may be mentioned, the groundsels (*Senecio*), epigea, the violet sorrel (*Oxalis violacea*), the dragon-root or wild-turnip (*Avum triphyllum*), the wild-indigo (*Baptisia tinctoria*), the asclepias, or butterfly-weed and milk-

Avens.

Canada Lily.

Cinquefoil.

Columbine.

Parnassus Grass.

Prickly Carex.

Pale Carex.

Slender-spiked Carex.

Jersey Tea.

Poison Sumac.

Leatherwood.

Witch Hazel.

Groundsel.

Violet Wood Sorrel.

Wild Turnip.

Catch Fly.

weed, the purple and yellow gerardias, the beautiful blue and purple gentians, the Philadelphia lily, the catch-flies (*Silene*); the side-saddle plant (*Sarracenia purpurea*), with its hairy, pitcher-like leaves, in which many an unwary insect finds a watery grave, a profusion of asters and golden-rods (*Solidago*), various cleavers (*Gelium*), the loose-strife (*Lysimachias*), the monkey-flower (*Mimulus ringens*), the nettles (*Urtica*), &c.

Many fine flowering aquatic plants are also found in this region, among which are the hydropeltis, the orontium, various singular sagittarias (arrow-heads), the white water-lily (*Nymphæa Alba*), and yellow water-lily (*Nuphar advena*), the vallisneria Americana, famous as the food of the canvass-back ducks, the pickerel-weed (*Pontederia cordata*), &c.

Side-Saddle Plant.

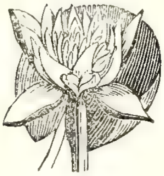
Golden Rod.

Cleavers

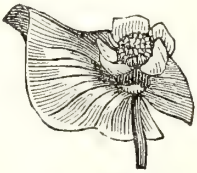
Loose-Strife.

Monkey Flower.

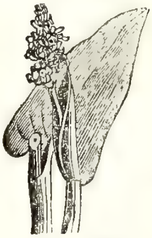
Arrow Head.



White Water Lily.



Yellow Water Lily.



Pickerel Weed.

Lupine.

Several grasses of peculiar forms, numerous rushes (*junci*), the large and beautiful wild-rice (*Zizania aquatica*), some carices, &c. are among the gramineous plants. The numerous ferns are all different from those of the eastern continent.

In the more southern regions (35° lat. to 25°) the number of species increases, and the vegetation becomes more peculiar; most of the plants of the last-described section being found here, with many that are confined to the warmer skies. The climbing plants are numerous, including numerous clematis, vines, passifloras, tillandsias (long moss), &c. Among the herbaceous and smaller plants are several lupines, sarracenias, gentians, the fly-trap (*Dionæa muscipula*), which takes its name from its curious apparatus for catching insects, the sun-dews (*drosera*), asarums, amaryllis, the superb yuccas, the beautiful gerardias, parietarias, and numerous others. Aquatic plants abound, such as the magnificent nelumbium, nuphar, lobelias, &c., and the cane, a gigantic grass (*Miegia macrosperma*), occupies extensive tracts.

Venus' Fly Trap.

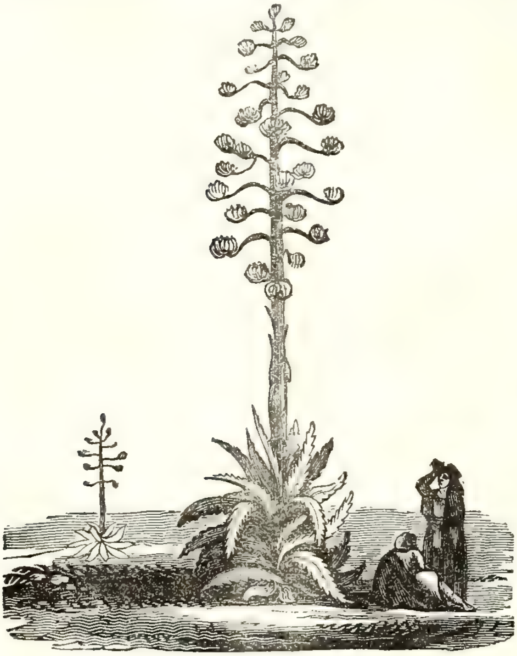
Sun Dew.

The prairies have a vegetation in many respects peculiar, and various grasses hold sway over these broad fields; it would be impossible here to enumerate these, and the numerous flowering plants West of the Rocky Mountains we enter a new botanical region, distinguished by its characteristic trees, shrubs, and smaller plants, but having some species common with the eastern part of the continent, and others with the opposite shores of Asia.

The approach to a tropical climate is first indicated by fields of cotton and rice. These southern countries, the climate of which is increased in heat and humidity far beyond that of corresponding latitudes in other parts of the world, present a complete mixture of the vegetable productions of Mexico and the northern States. Along with the principal part of the plants of Virginia and Kentucky, we have not only the cotton, the indigo, and the sugar-cane, as articles of cultivation, but the planes and the deciduous cypress acquire gigantic dimensions.

A solitary epidendron inhabits the branches of the magnolia near Savanna. In the same neighborhood is found the *Pinckneya*, a plant closely allied to the jesuit's bark of Peru; and the woods are filled throughout the Carolinas, Florida, Alabama, &c., with dense masses of the gigantic long-moss (*Tillandsia usneoides*), which hangs from the branches of the trees.

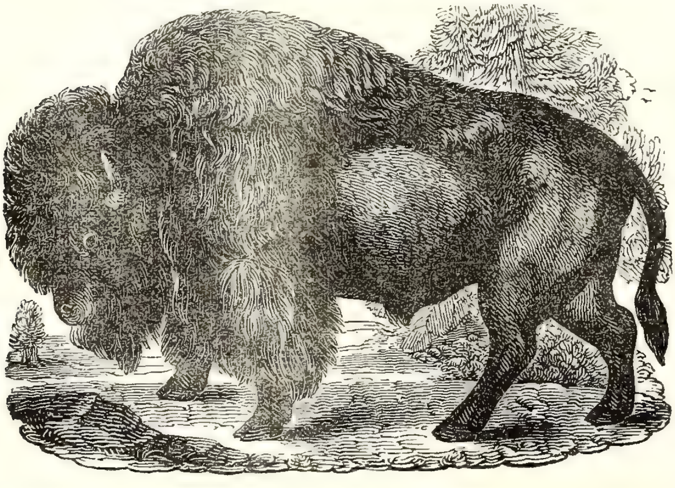
In southern Mexico we enter the tropics, and in all the valleys and plains, where the temperature is not lowered by accidental causes, the usual vegetation of such latitudes occurs. Palms, bananas (*Musa paradisiaca*), plantains (*Musa sapientum*), and yams, yield the natives an abundant supply of food. Besides these and the other common articles of cultivation by the inhabitants of tropical countries, such as coffee, indigo, sugar-cane, and maize (which here finds its native home), the cacao-tree (*Theobroma cacao*), from whose seeds chocolate is prepared, is a most important species; pine-apples are wild in the woods; the American aloe (*Agave Americana*), yields an intoxicating drink, and great numbers of cactuses occupy the dry situations, where little else will grow. In the low woods of Honduras are found enormous forests, containing an abundance of mahogany (*Swietenia Mahogani*) and logwood trees. It is here also that the tamarind and the lignum vitæ (*Guiacum officinale*) are found; the vanilla (*Epidendron vanilla*) and the jalap (*Convolvulus Jalapa*), which derives its name from the city of Xalapa, near which it principally abounds.


Agave Americana.

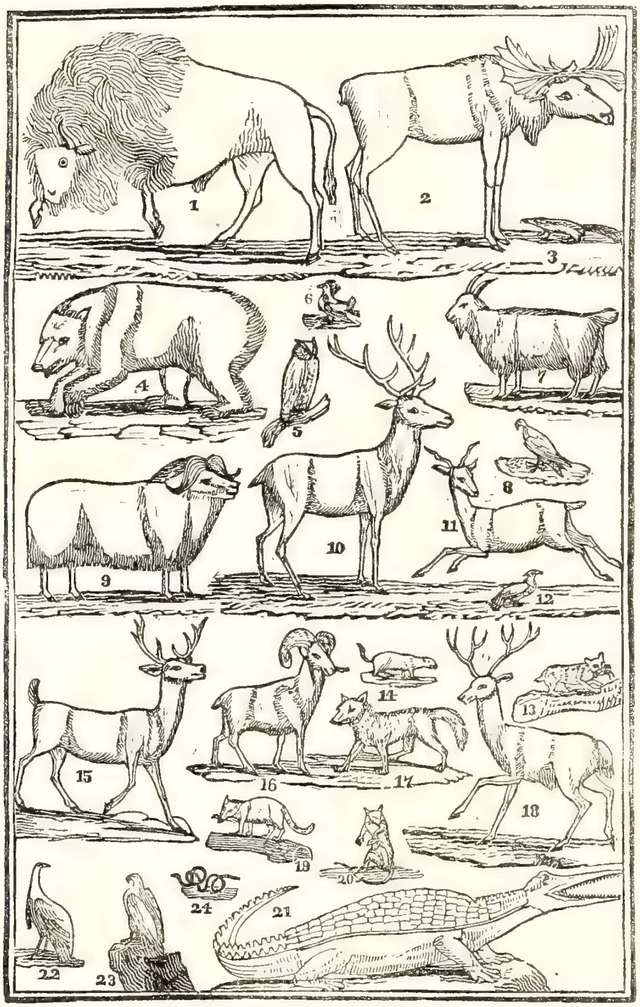
But in the highlands of Mexico this vegetation disappears; the eatable nasturtium (*Tropæolum esculentum*), and the wood-sorrel (*Oxalis tuberosa*) supply the place of the yam; mahogany trees give way to oaks, and the singular hand tree (*Cheirostemon*); while the pine tribe finds its most southern limits, and the herbage is composed of genera either resembling or identical with those of more northern regions.

10. *Animals* Most of the American quadrupeds are of a distinct species, even when they bear the same name with those of the eastern continent.

The bison (*Bos Americanus*) is a species of ox found only in North America, and is distinguished by the hump on its shoulders, and the length and fineness of its hair, which is sometimes manufactured into hats and coarse cloth. It was formerly found over a great part of the continent from 30° to 60° N., but is now never seen to the east of the river Mississippi. The flesh is tender and well-flavored, and the tongue and hump are considered great delicacies. The skins, dressed with the hair on, are familiarly known as buffalo robes, the animal being generally though improperly called buffalo. The bison has been domesticated, and in a wild state does not attack man, unless when wounded


American Bison.

COMPARATIVE SIZE OF ANIMALS OF NORTH AMERICA.



1. Bison. 2. Moose. 3. Badger. 4. Grizzly Bear. 5. Owl. 6. Pinnated Grouse. 7. Rocky Mountain Goat. 8. Turkey Buzzard. 9. Musk Ox. 10. American Elk. 11. Antelope. 12. Ruffed Grouse. 13. Wild Cat. 14. Prairie Marmot. 15. Virginia Deer. 16. Rocky Mountain Sheep. 17. Prairie Wolf. 18. Black Tailed Deer. 19. Raccoon. 20. Opossum. 21. Alligator. 22. Wild Turkey. 23. Eagle. 24. Rattlesnake.

and at bay. It feeds in the vast prairies of the west in herds of several thousands, which are usually led by a bull, remarkable for strength and fierceness. While feeding, the bisons are scattered over a great extent of country, but when they move in mass, they form a dense column, which, once in motion, is scarcely to be impeded. Their march is seldom interrupted even by rivers, across which they swim without hesitation, nearly in the order that they traverse the plains. When flying before their pursuers, it would be in vain for the foremost to halt, as the throng in the rear still rushes onward, and the leaders must advance. The Indians take advantage of this circumstance to destroy great quantities of this favorite game ; luring a herd to the vicinity of a precipice, they terrify them by shouts and artifices, until they drive them headlong down the descent.

The following account of the *Bison* is furnished by Dr. Richardson :

" At the period when the Europeans began to make settlements in North America, this animal was occasionally met with on the Atlantic coast ; but even then it appears to have been rare to the eastward of the Appalachian Mountains ; for Lawson has thought it to be a fact worth recording, that two were killed in one season on Cape Fear River. As early as the first discovery of Canada it was unknown in that country. Theodat, whose history of Canada was published in 1636, merely says, that he was informed, that bulls existed in the remote western countries. Warden mentions, that at no very distant date, herds of them existed in the western parts of Pennsylvania, and that as late as the year 1766 they were pretty numerous in Kentucky; but they have gradually retired before the white population, and are now, he says, rarely seen to the south of the Ohio, or on the east side of the Mississippi. They still exist, however, in vast numbers, and roam in countless herds over the prairies that are watered by the Arkansas, La Platte, Missouri, and upper branches of the Saskatchawan and Peace rivers. Great Slave Lake, in latitude 60°, was at one time the northern boundary of their range; but of late years, according to the testimony of the natives, they have taken possession of the flat limestone districts of Slave Point, on the north side of that lake, and have wandered to the vicinity of Great Marten Lake, in latitude 63° or 64°. As far as I have been able to ascertain, the limestone and sandstone formations lying between the Great Rocky Mountain ridge and the lower eastern chain of primitive rocks, are the only districts in the fur countries that are frequented by the bison. In these comparatively level tracts, there is much prairie land, on which they find good grass in summer; and also, many marshes overgrown with bulrushes and carices, which supply them with winter food. Salt springs and lakes also abound on the confines of the limestone, and there are several well-known salt-licks, where bisons are sure to be found at all seasons of the year. They do not frequent any of the districts formed of primitive rocks; and the limits of their range to the eastward, within the Hudson's Bay Company's territories, may be nearly correctly drawn on the map by a line commencing in longitude 97° on the Red River, which flows inte the south end of Lake Winnipeg, crossing the Saskatchawan to the westward of Basquiau hill, and running from thence by the Athapescow to the east end of Great Slave Lake. Their migrations to the westward were formerly limited by the Rocky Mountain range, and they are still unknown in New Caledonia, and on the shores of the Pacific to the north of the Columbia River; but of late years they have found out a passage across the mountains near the sources of the Saskatchawan, and their numbers to the westward are said to be annually increasing. In 1806, when Lewis and Clark crossed the mountains at the head of the Missouri, Bison skins were an important article of traffic between the inhabitants on the east side, and the natives to the westward. Further to the southward, in New Mexico and California, the bison appears to be numerous on both sides of the Rocky Mountain chain. One of the earliest accounts we have of the animal is by Hernandez; and Reechus' edition of his observations is illustrated by an engraving which seems to have been made from a rude sketch of the bison, altered by the European artist to a closer resemblance with the European ox. Hennepin, in the narrative of his discovery of Louisiana, gives a very good description of the bison, together with a figure, which is apparently a copy of that of Reechus. It does not appear to have excited much attention in Europe until lately, when several specimens were exhibited in England, under the attractive title of *Bonasus*, which, though described by the ancients, was asserted to have been lost to the moderns, until recognised in the American animal. The American bison has in fact much resemblance to the Aurochs of the Germans, identified by Cuvier with the *bonasus* of Aristotle, the *bison* of Pausanias and Pliny, and the *urus* of Cæsar, and which, down to the reign of Charlemagne, was not rare in Germany, but is now nearly confined to the hilly country lying between the Caspian and Black Sea.

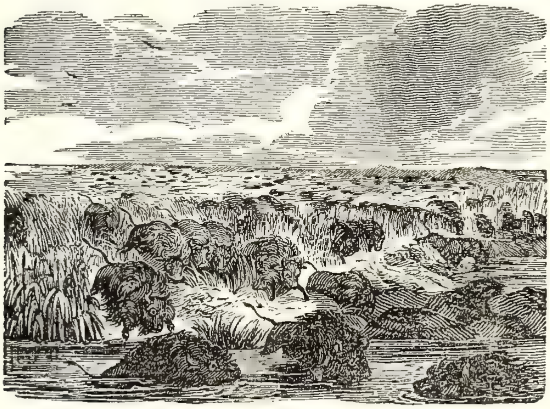
"The bisons wander constantly from place to place, either from being disturbed by hunters, or in quest of food. They are much attracted by the soft, tender grass which springs up after a fire has spread over the prairie. In winter, they scrape away the snow with their feet, to reach the grass. The bulls and cows live in separate herds for the greater part of the year; but at all seasons, one or two bulls generally accompany a large herd of cows. The bison is in general a shy animal; and takes to flight instantly on winding an enemy, which the acuteness of its sense of smell enables it to do from a great distance. They are less wary when they are assembled together in numbers, and will then often blindly follow their leaders, regardless of, or trampling down the hunters posted in their way. It is dangerous for the hunter to show himself after having wounded one, for it will pursue him, and although its gait may be heavy and awkward, it will have no difficulty in overtaking the fleetest runner.

"Many instances might be mentioned of the tenaciousness with which this animal pursues his revenge; and I have been told of a hunter having been detained for many hours in a tree by an old bull, which had taken his post below to watch him. When it contends with a dog, it strikes violently with its fore feet, and in that way proves more than a match for an English bull-dog. The favorite Indian method of killing the bison, is by riding up to the fattest of the herd on horseback, and shooting it with an arrow. When a large party of hunters are engaged in this way, the spectacle is very imposing, and the young men have many opportunities of displaying their skill and agility. The horses appear to enjoy the sport as much as their riders, and are very active in eluding the shock of the animal, should it turn on its pursuer. The most generally practised plan, however, of shooting the bison, is by crawling towards them from to leeward; and in favorable places, great numbers are taken in pounds. When the bison runs, it leans very much to first one side for a short space of time and then to the other, and so on alternately.

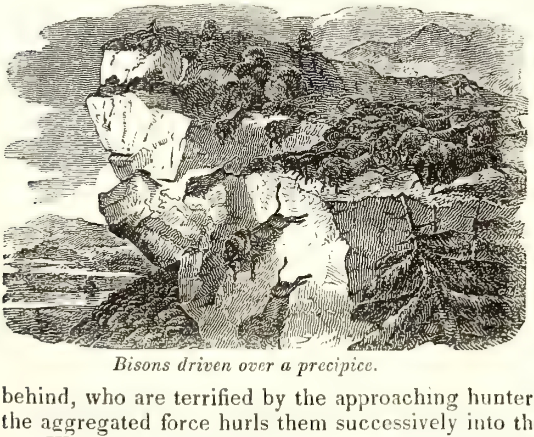
"The flesh of a bison, in good condition, is very juicy and well-flavored, much resembling that of well-fed beef. The tongue is considered a delicacy, and may be cured so as to surpass in flavor the tongue of an English cow. The hump of flesh covering the long spinous processes of the first dorsal vertebræ is much esteemed. It is named *bos* by the Canadian voyagers, and *wig* by the Orkney men in the service of the Hudson's Bay Company. The wig has a fine grain, and when salted and cut transversely, it is almost as rich and tender as the tongue. The fine wool which clothes the bison renders its skin, when properly dressed, an excellent blanket; and they are valued so highly that a good one sells for three or four pounds in Canada, where they are used as wrappers by those who travel over the snow in carioles. The wool has been manufactured in England into a remarkably fine and beautiful cloth, and, in the colony of Osnaboyna, on the Red River, a warm and durable coarse cloth is made of it. Much of the pemmican used by the voyagers attached to the fur companies, is made of bison meat, procured at their posts on the Red River and Saskatchawan. One bison cow, in good order, furnishes good meat and fat enough to make a bag of pemmican weighing 901 lbs. The bisons which frequent the woody parts of the country form smaller herds than those which roam over the plains, but are said to be individually of a greater size."

The following extracts are from Dr. Godman:

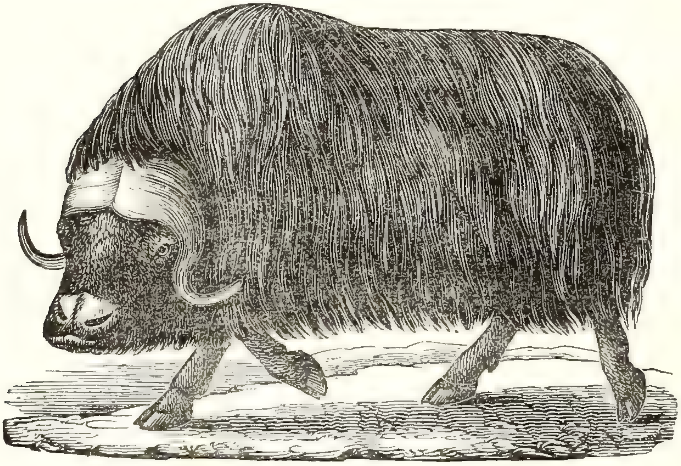
"The herds of bisons wander over the country in search of food, usually led by a bull most remarkable for strength and fierceness. While feeding they are often scattered over a great extent of country, but when they move in mass, they form a dense and almost impenetrable column, which, once in motion, is scarcely to be impeded. Their line of march is seldom interrupted even by considerable rivers, across which they swim without fear or hesitation, nearly in the order that they traverse the plains. When flying before their pursuers, it would be in vain for the foremost to halt, or attempt to obstruct the progress of the main body, as the throng in the rear still rushing onward, the leaders must advance, although destruction awaits the movement. The Indians take advantage of this circumstance to destroy great quantities of this favorite game, and, certainly, no mode could be resorted to more effectually destructive, nor could a more terrible devastation be produced, than that of forcing a numerous herd of these large animals to leap together from the brink of a dreadful precipice, upon a rocky and broken surface, a hundred feet below.


Herd of Bisons.

"When the Indians determine to destroy bisons in this way, one of their swiftest-footed and most active young men is selected, who is disguised in a bison skin, having the head, ears, and horns adjusted on his own head, so as to make the deception very complete, and, thus accoutred, he stations himself between the bison herd and some of the precipices, that often extend for several miles along the rivers. The Indians surround the herd as nearly as possible, when, at a given signal, they show themselves and rush forward with loud yells. The animals being alarmed, and seeing no way open but in the direction of the disguised Indian, run towards him, and he, taking to flight, dashes on to the precipice, where he suddenly secures himself in some previously ascertained crevice. The foremost of the herd arrives at the brink, — there is no possibility of retreat, no chance of escape; the foremost may, for an instant shrink with terror, but the crowd behind, who are terrified by the approaching hunters, rush forward with increasing impetuosity, and the aggregated force hurls them successively into the gulf, where certain death awaits them.


Bisons driven over a precipice.

"We have already adverted to the great numbers of these animals which live together. They have been seen in herds of 3000 or 5000, blackening the plain as far as the eye could view. Some travelers are of opinion, that they have seen as many as 8 or 10,000 in the same herd, but this is merely a conjecture. At night it is impossible for persons to sleep near them who are unaccustomed to their noise, which, from the incessant lowing and roaring of the bulls is said very much to resemble distant thunder. Although frequent battles take place between the bulls, as among domestic cattle, the habits of the bison are peaceful and inoffensive, seldom or never offering to attack man or other animals, unless outraged in the first instance."



Musk Ox.

The *Musk Ox* (*Bos Moschatus*) inhabits the barren lands of North America, lying to the northward of 60°. He is found west of the Rocky Mountains, and on the islands as far north as Melville Island. He also frequents the northern shore of Hudson's Bay. The country inhabited by the musk ox is mostly rocky and destitute of wood, except on the banks of large rivers, which are generally more or less thickly clothed with wood. His food is similar to that of the caribou; grass at one season, and lichen at the other. When the animal is fat, its flesh is well tasted, and resembles that of the caribou, except that at times it is highly flavored with musk. The wool resembles that of the bison, and would no doubt be highly useful if it could be procured in sufficient quantity. The musk ox is much hunted by the Esquimaux and Indian tribes.

White Bear.

The *White* or *Polar Bear* (*Ursus Maritimus*) is found in all the northern parts of America, Europe, and Asia; and it is found in America as far south as Labrador and Hudson's Bay. His principal residence is on fields of ice, with which he frequently floats a great distance from the land. These creatures feed principally on animal substances, and, as they swim and dive well, they hunt seals and other marine animals with great success. They feed likewise on land animals, birds, and eggs, nor do they disdain to prey on carrion, or, in the absence of these, to seek the shore in quest of berries and roots. They scent their prey from a great distance. Captain Lyon affirms, that they not only swim with rapidity, but are capable of making long springs in the water. Their pace on land has been described as "a kind of shuffle, as quick as the sharp gallop of a horse." They are not known to travel far inland. The white bear has prodigious strength, and he often attacks the sailors who visit the Arctic seas.

The *Brown Bear* (*Ursus Arctos*), which inhabits the barren lands stretching on the north and east of Slave Lake to the Arctic Ocean, feeds on fish, berries, and small quadrupeds, and is smaller and less fierce than the preceding.

The *Black Bear* (*Ursus Americanus*) is spread over nearly the whole of North America, and occurs in the thinly settled regions of the United States. Its fur is long, black, and shining; it feeds on roots, berries, insects, birds, fish, and small quadrupeds, and is fond of maize and honey, and being an expert climber, often ascends trees to plunder the hoards of the wild bee

It seldom exceeds five feet in length, and is rather timid and mild. In cold regions it sleeps through the winter.

Grizzly Bear.

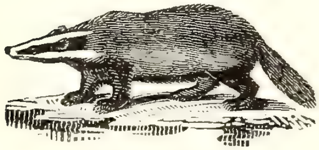
Like the American black bear, the ***Grizzly Bear*** (*Ursus ferox*) inhabits the northern part of America; but, unlike him, he is, perhaps, the most formidable of all bears in magnitude and ferocity. He averages twice the bulk of the black bear, to which, however, he bears some resemblance in his slightly elevated forehead, and narrow, flattened, elongated muzzle. His canine teeth are of great size and power. The feet are enormously large; the breadth of the fore foot exceeding nine inches, and the length of the hind foot, exclusive of the talons, being eleven inches and three quarters, and its breadth seven inches. The talons sometimes measure more than six inches. He is, accordingly, admirably adapted for digging up the ground, but is unable to climb trees, in which latter respect he differs wholly from every other species. The color of his hair varies to almost an indefinite extent, between all the intermediate shades of a light gray and a black brown; the latter tinge, however, being that which predominates. It is always in some degree grizzled, by intermixture of grayish hairs, only the brown hairs being tipped with gray. The hair itself is, in general, longer, finer, and more exuberant than that of the black bear.

The neighborhood of the Rocky Mountains is one of the principal haunts of this animal. There, amidst wooded plains and tangled copses of bough and underwood, he reigns as much the monarch, as the lion is of the sandy wastes of Africa. Even the bison cannot withstand his attack. Such is his muscular strength, that he will drag the ponderous carcass of the animal to a convenient spot, where he digs a pit for its reception. The Indians regard him with the utmost terror. His extreme tenacity of life renders him still more dangerous; for he can endure repeated wounds which would be instantaneously mortal to other beasts; and, in that state, can rapidly pursue his enemy. So that the hunter who fails to shoot him through the brain, is placed in a most perilous situation.

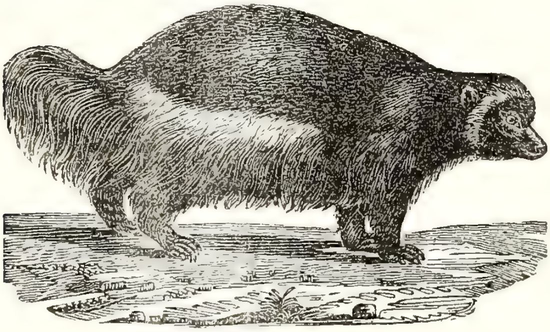
Richardson relates the following story of a grizzly bear: —

> "A party of voyagers, who had been employed all day in tracking a canoe up the Saskatchawan, had seated themselves in the twilight by a fire, and were busy in preparing their supper, when a large grizzly bear sprang over their canoe that was behind them, and seizing one of the party by the shoulder, carried him off. The rest fled in terror, with the exception of a man named Bourasso, who, grasping his gun, followed the bear as it was retreating leisurely with its prey. He called to his unfortunate comrade that he was afraid of hitting him if he fired at the bear, but the latter entreated him to fire immediately, as the animal was squeezing him to death. On this, he took a deliberate aim, and discharged his piece into the body of the bear, which instantly dropped its prey to pursue Bourasso. He escaped with difficulty, and the bear retreated to a thicket, where it is supposed to have died. The man who was rescued had his arm fractured, and was otherwise severely bitten by the bear, but finally recovered."

The same author mentions a man now living, who was attacked by a grizzly bear, which sprang out of a thicket, and with one stroke of his paw completely scalped him, laying bare the skull, and bringing the skin of his forehead down over the eyes. Assistance coming up, the bear made off without doing him further injury; but the scalp not being replaced, the poor man has lost his sight, although he thinks that his eyes are uninjured.


American Badger

The ***American Badger*** (*Meles Labradorica*) frequents the sandy plains or prairies which skirt the Rocky Mountains, as far north as the Peace River and sources of the River of the Mountains, in latitude 58°. It abounds on the plains watered by the Missouri, but its exact southern range has not, as far as is known, been defined by any traveler. The sandy prairies in the neighborhood of Carlton-house, on the banks of the Saskatchawan, and also on the Red River, that flows into Lake Winnipeg, are perforated by innumerable badger-holes, which are a great annoyance to horsemen, particularly when the ground is covered with snow. At this time, the badger rarely or never comes out of its hole. It is a slow and timid animal, taking to the first earth it comes to when pursued; and as it makes its way through the sandy soil with the rapidity of a mole, it soon places itself out of the reach of danger. The strength of its fore-feet and claws is so great, that one which had insinuated only its head and shoulders into a hole, resisted the utmost efforts of two stout young men who endeavored to drag it out by its hind legs and tail, until one of them fired the contents of his fowling-piece into his body. Early in the spring, however, when they first begin to stir abroad, they may easily be caught by pouring water into their holes; for the ground being frozen at that period, the water does not escape through the sand, but soon fills the hole, and its tenant is obliged to come out.


Wolverene.

The American Badger is generally less in size and of a lighter make than the European, and the markings on the fur are very different, and the tail is much shorter.

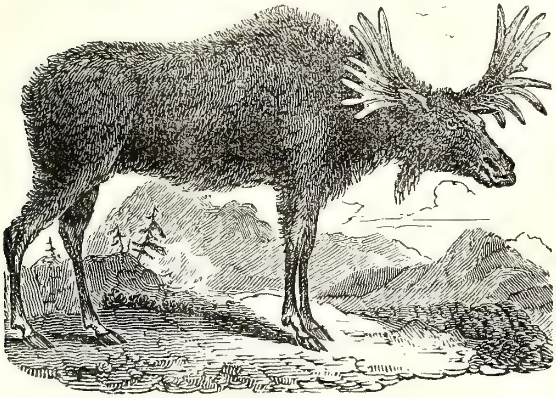
One species of glutton (*Gulo luscus*), the wolverene, also of the bear family, is found in the northern parts of North America. Its body is about 28 inches in length, and it is remarkable for its slowness, voracity, and strength. It destroys young foxes, beaver, and other small quadrupeds; its fur is valued for the length and thickness of the hair.

American Elk.

The *American Elk* or *Wapiti* (*Cervus strongyloceros*) is second in size to the moose alone. The size and appearance of the elk are imposing; his air denotes confidence of great strength, while his towering horns exhibit weapons capable of doing much injury when offensively employed. It is not uncommon to see them four or five feet in height, and it said they are sometimes still higher. The elk has at one period ranged over the greater part, if not the whole, of this continent. Hearne leaves no doubt of its existence as far north as 53°. They are occasionally found in the remote and thinly settled parts of Pennsylvania, but the number is small. They are found in great numbers in the western wilds, and west of the Rocky Mountains, where the forests supply them with an abundance of buds and tender twigs. The elk is shy and retiring, and has very acute senses. The moment the air is tainted with the odor of his enemy, his head is erected with spirit, his ears rapidly thrown in every direction to catch the sounds, and his dark, glistening eye expresses the most eager attention. As soon as he discovers the hunter, he bounds along for a few paces, stops, turns half round, and scans his pursuer with a steady gaze, then throwing back his lofty horns, and projecting his taper nose forward, he springs from the ground and advances with a velocity which soon leaves the object of his dread far out of sight.

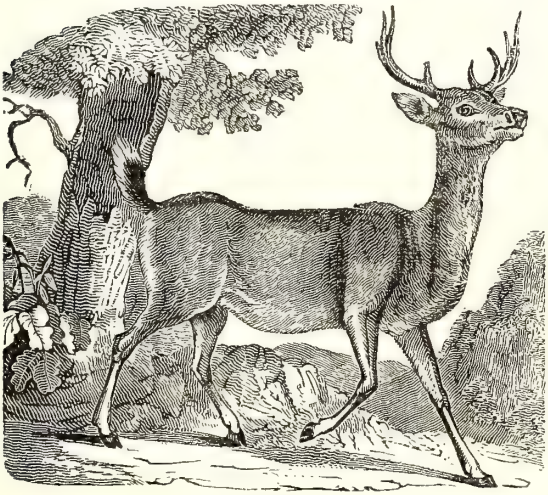
The flesh of the elk is highly esteemed by the Indians and hunters as food, and the horns, while in a soft state, are also considered a delicacy; of their hides a great variety of articles of dress and usefulness are prepared. The Indians make bows of the perfect horn, which are highly serviceable from their elasticity. These animals have been to a certain degree domesticated, and might possibly be rendered as useful as the rein-deer. — *Godman.*

The *Moose* (*Alces Americanus*) is the largest animal of the deer kind of the United States, and perhaps of the world. He bears a close resemblance to the elk of Europe, but is a distinct species. He is frequently met with in the British settlements, and occasionally strays within the boundary of all the States bordering upon Canada. He is more common, however, in Maine than in any other part of our country. He frequents the woody tracts between this State and the Bay of Fundy, and is also found in the fur countries much further north. He is a solitary animal, and the most shy and wary of all the deer species. The Indians frequently hunt the moose, sometimes tracking him in the light snow till they approach him, and then shooting him down with their rifles ; and sometimes, when the snow is deep, pursuing him on snow-shoes. Notwithstanding the lengthened chase which the moose can sustain on the snow, he is both tender-footed and short-winded, though several instances are recorded of his eluding pursuit for six successive days. This animal is often killed in the water by the Indians, as when they are crossing the rivers or lakes, they never make any resistance. They are the easiest to domesticate of any of the deer kind. Their flesh is much relished, resembling beef more than venison. These animals grow to a very large size, occasionally weighing eleven or twelve hundred pounds. There is a fine stuffed specimen in the museum at Albany, which measures more than six feet in height over the shoulders.


Moose.

The *Caribou* or American Rein-deer (*Cervus Tarandus*), of which there seem to be two varieties, is probably a different species from the Lapland rein-deer. It is abundant in the high northern latitudes of America, but has never been domesticated by the natives, or used for draft. It is occasionally found in more southern regions, and is not unfrequently seen within the boundary of Maine. We believe it is never met with in any other part of the United States. The barren ground caribou is much smaller than the woodland caribou, and is much more valuable for food. The barren lands would be wholly uninhabitable by the Indians, if it were not for the immense herds of these deer that exist there. Of their horns they make fish spears and hooks, and the hide dressed with the fur, is excellent for winter clothing, and supplies the place of both blankets and feather bed. It also forms a soft and pliable leather, adapted for moccasins, and when many skins are sowed together, they serve as tents. Ropes and thread are also made of the tendons. Their flesh affords excellent food, and is prepared in many different forms. The caribou is taken by the Indians in immense numbers in snares and traps, and great quantities are killed by the bow and arrow.

The *Common Deer* (*Cervus Virginianus*), which is also called the Virginia deer, and closely resembles the fallow deer of Europe, is the smallest but most abundant species of deer in North America. This animal is remarkable for the slenderness and delicacy of its form. Its long and slim neck, small body, and almost pointed head, give the animal the appearance of feebleness, which is counteracted only by observing the animated eye, the playful movements, and the admirable celerity of its course when at full speed. It is said by hunters to evince a strong degree of animosity towards serpents, and especially to the rattlesnake, of which it has an instinctive horror. In order to destroy one of these creatures, the deer makes a bound into the air, and alights upon the snake with all four feet brought together in a square, and these violent blows are repeated till the hated reptile is destroyed.


Common Deer.

The *Long Tailed Deer* (*Cervus leucurus*) is thought by Lewis and Clarke to be only a variety of the Virginia deer, being the same in size, shape, and appearance. The tail, however, far exceeds that of the Virginia deer in length. Captain Lewis measured one, and found it to be seventeen inches long. The favorite haunts of this animal are on the declivities of low hills, or dry undulating grounds. Its gait is two ambling steps and a bound, which mode it does not depart from, even when closely pursued. In running, the tail is erect, and, from its unusual length, is the most remarkable feature about the animal. It is the most common deer of any in the districts adjoining the river Oregon, more especially in the fertile prairies within one hundred miles of the Pacific Ocean. The flesh is excellent, and remarkably tender and well-flavored. — *Richardson.*

Black Tail.

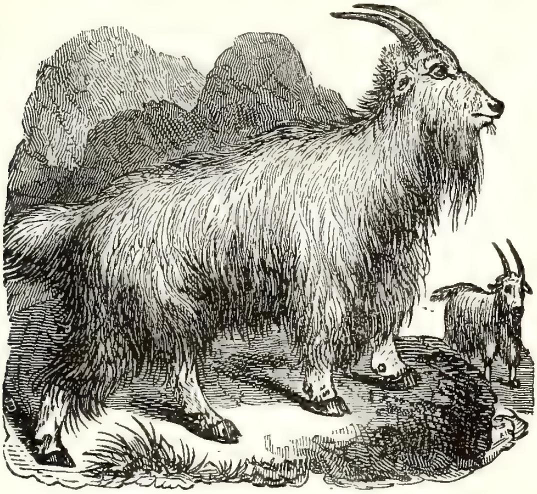
Prong-horned Antelope.

The *Black Tail*, or *Mule Deer* (*Cervus Macrotis*), is the inhabitant on the side of the mountains, of a district frequented by immense herds of buffalo, and also by the large moose deer and wapiti, and is of small esteem amongst the Indians in that quarter. It has attracted but little attention from the traders ; hence, with the exception of a brief notice by Umfreville, it was almost unknown to naturalists until Lewis and Clarke's expedition gave some information respecting it. The most northern range of this animal is the banks of the Saskatchawan, in lat. 54°. — *Richardson*

The *Prong-horned Antelope*, the only species of antelope found in America appears on the banks of the Saskatchawan, sometimes a solitary animal, sometimes assembled in herds of ten or twelve. Its sight and sense of smell are acute, and its speed is greater than that of any other inhabitant of the plains. The most northerly range of the prong-horned antelope (*Antelope furcifer*) is lat. 53°, on the banks of the north branch of the Saskatchawan. Some of them remain the whole year on the south branch of that river, but they are merely summer visiters to the north branch. According to Lewis and Clarke they also abound on the plains of the Columbia, west of the Rocky Mountains. They frequent open prairies and low hills, interspersed with clumps of wood, but are not met with in the continuously-wooded country. They feed on the grass of the plains during the summer, but migrate toward the mountains at the commencement of winter, and subsist there during that season on leaves and shrubs.

This animal has a graceful form, and slender head, with large eyes, and long and delicate limbs. The horns are black, and rise directly upwards. The upper parts of the body are of a clear yellowish-brown color ; the under parts are pure white. — *Richardson.*

The *Rocky Mountain Goat* (*Capra Montana*) inhabits the most lofty peaks of the Rocky Mountains, seldom descending so near the low country as the Rocky Mountain sheep. Their manners are said to resemble greatly those of the domestic goat. The exact limits of the range of this animal have not been ascertained, but it probably extends from the 40th to the 60th or 65th degree of latitude. It is common on the elevated part of the range that gives origin to the Mackenzie, Oregon, Nelson, and Missouri rivers. The fine wool which this animal produces, grows principally on the back and hips, and is intermixed with long coarse hair. The skin is thick, and is used for moccasins.

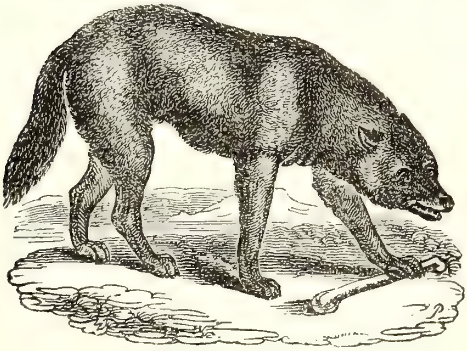


Rocky Mountain Goat.

The *Rocky Mountain Sheep* (*Ovis Americana*) inhabit the lofty chain of mountains from whence they derive their name, from its northern termination in latitude 68° to about latitude 40°, and most likely still further south. They also frequent the elevated and craggy ridges with which the country between the great mountain range and the Pacific is intersected ; but they do not appear to have advanced further to the eastward than to the declivity of the Rocky Mountains, nor are they found in any of the hilly tracts nearer to Hudson's Bay. Their favorite feeding places are grassy knolls skirted by craggy rocks, to which they can retreat when pursued by dogs or wolves. They are accustomed to pay daily visits to certain caves in the mountains that are encrusted with a saline efflorescence, of which they are fond. The flesh is said, by those who have fed on it, to be quite delicious when it is in season, far superior to that of any of the deer species which frequent the same quarter, and even exceeding in flavor the finest English mutton. This animal is called by the hunters Bighorn, from the great size of the horns, which are sometimes one foot in circumference at the base.

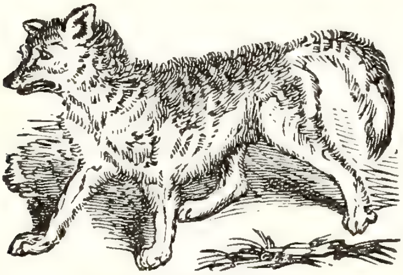
Rocky Mountain Sheep.

The canine species are numerous in North America. The common brown wolf (*Canis lupus*), which was formerly spread over a great part of the continent, and which is not yet exterminated even in the inhabited parts of the United States, nearly resembles the European wolf, but appears to differ from it in some respects. The gray wolf, which is numerous in the more northern regions, is perhaps also a distinct variety. The habits and character, however, are very similar ; though cruel and bloodthirsty, and, at times when pressed by hunger, bold, they are in general timid. They run down the deer and fox, and in the vicinity of settled districts attack domestic animals.



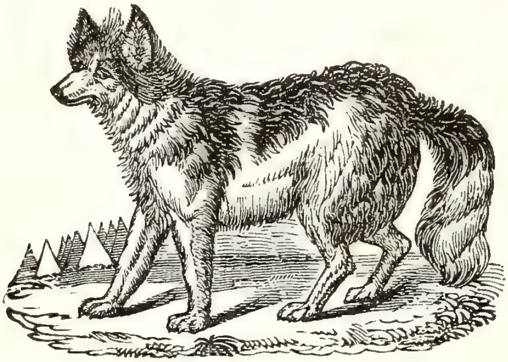
Common Wolf.

The Prairie or Barking Wolf (*Canis latrans*), frequents the prairies or natural meadows of the west, where troops or packs containing a considerable number of individuals are frequently seen following in the train of a herd of buffalo or deer, for the purpose of preying on such as may die from disease, or in consequence of wounds inflicted by the hunters. At night they also approach the encampments of travelers, whom they sometimes follow for the sake of the carcasses of animals which are relinquished, and, by their discordant howlings close to the tents, effectually banish sleep from those who are unaccustomed to their noise. The barking wolf closely resembles the domestic dog of the Indians in appearance, and is remarkably active and intelligent. Like the common wolf, the individuals of this species frequently unite to run down deer, or a buffalo calf which has been separated from the herd, though it requires the fullest exercise of all their speed, sagacity, and strength, to succeed in this chase. They are very often exposed to great distress from want of food, and in this state of famine are under the necessity of filling their stomachs with wild plums, or other fruits no less indigestible, in order to allay in some degree the inordinate sensations of hunger. *The Dusky and Black Wolf* are also found frequenting the same districts as the prairie wolf, but they are not so numerous.


Prairie or Barking Wolf.

The *Newfoundland Dog* is remarkable for sagacity, strength, size, and beauty, and in external characters differs almost entirely from the Esquimaux, and Hare Indian dog. He is very fond of water, and swims with great ease. He is employed with advantage by the settlers to draw heavily laden sledges, and is an invaluable servant. Of his peculiar sagacity numerous instances are on record.

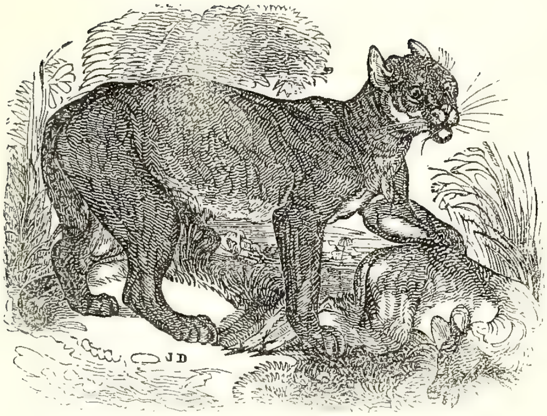
The ***Hare Indian Dog*** (***Canis lagopus***) is found on the banks of the Mackenzie and the Great Bear Lake, and is used by the Hare Indians and a few other tribes for the chase, as it is too small to be useful as a beast of draft or burden. It resembles the prairie wolf, but is smaller in size. It is very playful and affectionate, and very fond of being caressed. It is not, however, docile, and dislikes confinement of every kind. Its voice is very much like that of the prairie wolf.


Hare Indian Dog.

The North American Dog is more in use than any other in the Hudson's Bay countries and in Canada, and is in size between the Esquimaux and Hare Indian dog ; but it wants the strength of the former, and the playful disposition of the latter. It is used in the chase, and by some tribes as a beast of burden or draft, but it has all the sneaking habits of the wolf, with less courage and intelligence. Its color is generally black and gray, striped with white. It has a very thick and woolly coat. The flesh of the North American dog is esteemed before that of almost every other animal by the Canadian voyagers.

The Esquimaux Dog (*Canis Borealis*), is about the size of the Newfoundland dog, and has a very majestic appearance. It is of great use to the Esquimaux and the traders, in drawing their furs and other baggage. The weight that several of these animals will draw over the snow is really surprising. The number of dogs attached to a sledge is usually five. They are harnessed two abreast, the leader being usually a well-broken and long-trained dog. He is guided by the voice of his master, and is generally perfectly obedient.

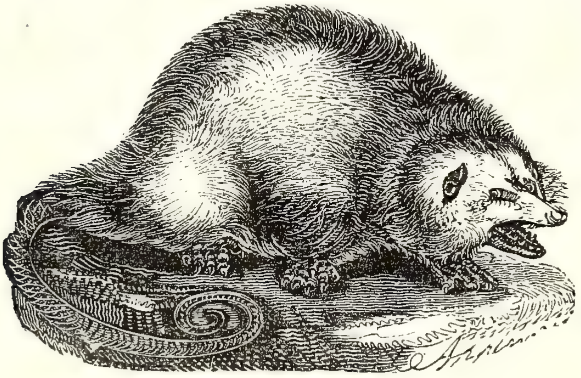
The Cougar (*Felis concolor*), which is now seldom seen in the settled parts of our country, still finds a secure retreat in the gloomy forests of Pennsylvania. This animal, which passes under the various names of panther, painter, and catamount, in this country, and in South America is called puma, and sometimes the South American lion, is the largest of the cat family which inhabits North America. He is about 5 feet in length, with a long body, and rather



Cougar.

short legs. The upper part of his body is of a silvery fawn color; the under parts are nearly white. He is of a cowardly disposition, but like most cowards, is very sanguinary, and will often kill more than he can eat. In seizing his prey the cougar crawls upon his belly through the shrubs and bushes; as soon, however, as he can reach his victim, he springs upon his back with one bound, and soon tears it to pieces. He climbs trees with agility, and often descends with a sudden and fatal leap from the branches upon the unsuspecting deer. This animal is found in all the unsettled parts of the United States. He will seldom attack a man, yet instances are recorded in which individuals have fallen victims to his rapacity. Dr. Godman gives an account of a sportsman who was killed by a cougar in the Catskill Mountains, a few years since, and whose body was soon after discovered in the possession of the animal upon one of the branches of a large tree.

Of the *lynx* or short-tailed cat, which is not much larger than the domestic cat, there are several species in North America. The Canada lynx (*Felis Canadensis*) is abundant in the regions about Hudson's Bay, and preys upon rabbits and hares. Its skins are exported in great numbers.



Opossum.

The Opossum (*Didelphis Virginiana*) is found from Pennsylvania to Brazil. He walks awkwardly, and seldom runs; a man can easily overtake him without hastening his steps. He climbs up trees with great facility, hides himself in the leaves to catch birds, or hangs himself by the tail from a branch. He sometimes remains a long time in this situation, without motion, his body hanging head downwards, while he silently waits for his prey. Though he is voracious, and even greedy of blood, which he sucks with avidity, he feeds also upon reptiles, insects, potatoes, roots, and even the upper bark and leaves of trees. He is neither wild nor ferocious, and may be rendered domestic. The savages of the western country hunt the opossum, and feed heartily upon his flesh. The most remarkable circumstance in the natural history of this animal, is the pouch which is formed under the belly of the female, as a retreat for her young ones. This they leave to seek subsistence, and return when terrified, or in order to sleep. The mother, when she flies, carries them all with her.

The Prairie Marmot (*Arctomys Ludovicianus*), or Wistonwis, commonly called *Prairie Dog*, builds his dwelling in the barren tracts of the western country, and may often be seen sitting by the small mounds of earth, which indicate his abode, in an attitude of profound attention. Whole acres of land are occupied by these little tenants, and villages are found, containing thousands of inhabitants. Near the Rocky Mountains these villages are found to reach several miles. The burrow extends under ground, but to what distance has not been determined.

This Marmot, like the rest of the species, remains torpid during the winter. It is very much annoyed in its habitation by owls, rattlesnakes, lizards, and land tortoises, who appropriate these comfortable dwellings for their own use, and frequently destroy the young marmots.

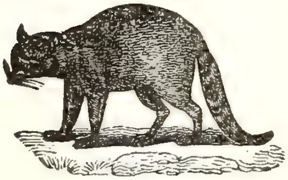
The Hoary Marmot, or *Whistler*, (*Arctomys pruinosus*), inhabits the Rocky Mountains. It burrows in sandy soil, and may frequently be seen cutting hay, either for food or for its nest. While a party of them are employed in this way, if they are disturbed, the sentinel who sits near on an eminence, gives the alarm by a shrill whistle, which may be heard at a great distance, and is repeated from one marmot to the other as far as their burrows extend. The Whistler feeds on roots and herbs, and is said to be about the size of a badger, and covered with silver-gray hair. The Indians take them in traps, and consider their flesh delicious food. They use their skins sewed together as blankets.

The Short-tailed Marmot is found on the banks of the Oregon, and forms burrows in immense numbers, sometimes covering 200 acres of land. Each burrow contains ten or twelve inhabitants. *Say's Marmot* (*Arctomys lateralis*), is ranked among the squirrels by Godman, under the name of the Rocky Mountain Ground Squirrel. Its back is striped with brown and white lines. It burrows in the ground, and is very abundant in the Rocky Mountains.

The Quebec Marmot inhabits the wooded districts of Canada. It appears to be a solitary animal, and lives in burrows in the earth, but ascends bushes in the trees, probably in search of birds and other vegetable matters, on which it feeds. The Indians take it by pouring water into its holes.

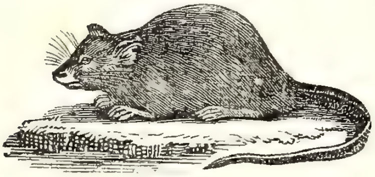
Parry's Marmot.

Marmot or Woodchuck. This animal, (*A. monax*), usually called the Maryland Marmot, is common in the United States. In some places it does great injury to the farmers, as the quantity of herbage it consumes is really surprising. It burrows in the sides of hills, and penetrates to great distances under ground. At the commencement of cold weather it goes into its burrow, blocks up the door within, and remains torpid till the warm season. *Parry's Marmot* is found in stony districts, where it burrows in the sand between the rocks. Its cry when alarmed is like the sound of a watchman's rattle. It feeds on vegetables.


Raccoon.

The ***Raccoon*** (***Procyon lotor***) has never been found in the Eastern Continent, but is widely distributed over this. While eating, the raccoon usually supports himself on his hind legs, and uses his paws to hold his food; he can open an oyster with the utmost dexterity. If water be near, he generally dips his food into it. By his pointed claws he is able to climb trees with great facility. He runs up the trunk with the same swiftness that he moves over the plains, and frolics about the extremity of the branches with great security and ease. On the ground, indeed, he rather bounds than runs, and his motions, though singularly oblique, are yet always quick and expeditious. He may be tamed without difficulty, and is then very good-natured and sportive; but he is as mischievous as a monkey, and seldom remains at rest.

The *Beaver* (*Castor Fiber*), formerly common over a great part of the continent, is now become comparatively scarce. It is celebrated for the ingenuity which it displays in constructing its dwelling, and many fables have been related concerning it. It is about two feet in length, with a tail nearly a foot long, which is covered with scales. The body is covered with two sorts of hair, of which one is long and stiff, and the other short, thick, and soft. The food of the beavers is roots of aquatic plants, berries, and the bark of trees. Their houses, which are only for winter residence, are built on the banks of a stream or pond, and they generally select in preference running and rather deep waters, which are less apt to freeze. These habitations are constructed of the trunks and branches of small trees, which they fell for the purpose so as to cause them to fall into the water. These are mixed with mud and stones, which they carry in their fore paws. When they build on running water, they often construct dams of considerable size and much strength, and of the same materials as their houses.

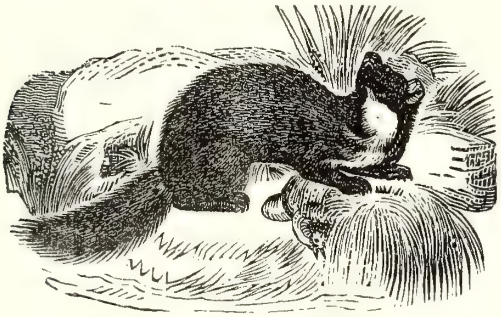

Muskrat.

The ***Muskrat*** or ***Musquash*** (***Fiber Zibethicus***), an animal of the beaver kind, but much smaller than the common beaver, is found from 30° to 70° north latitude. Its fur is much valued, and several hundred thousand are annually obtained. The muskrat feeds on the leaves and roots of aquatic plants and on shell-fish, and burrows or builds houses like those of the beaver.

The *Jumping Mouse* (*Meriones labradorius*) is found from Canada to Pennsylvania. Its size is nearly the same as that of the common mouse. It is found in grass and grain fields. In the winter it buries itself in the ground, and lies torpid till the warm weather commences. It is astonishing to see so small a creature jumping above five or six feet at a single bound; its movements resemble those of a bird at these times, so high does it leap into the air, and so light and quick are its ascent and descent. The *Labrador Jumping Mouse* resembles the preceding in its mode of living, and is common in Labrador and the Hudson's Bay country.

The *Shrew Mole* is found abundantly in Canada, and has the appearance of a small stuffed sack, its head being destitute of external ears, and the eyes so extremely small and hidden by the fur, that one might suppose the creature blind. Yet it is surprisingly active, and burrows with great quickness with its broad fore-paws. These burrows are sometimes of great depth, and are composed of numerous galleries. Their situation may be generally known by the loose hills of dirt which are found over the surface of them. The favorite food of the shrew mole is earthworms, shrubs, and insects of various kinds. The *Star-nose Mole* is distinguished by a sort of fringe which surrounds the nostrils.

The *Pine Marten* (*Mustela Martes*) is found in the woody districts in the northern parts of North America in great numbers. It burrows in the ground. Its fur is fine, and has always been an important article of commerce. The *Pekan* or *Fisher* (*Mustela Canadensis*) is known under many appellations. It is a larger and stronger animal than the pine marten, but has similar manners. It lives in the woods, in the vicinity of water. Its favorite food is said to be the Canada porcupine. The *Mink*, or *Vison Weasel* (*Putorius Vison*), passes much of its time in the water, and preys on small fish, spawn, and muscles. It swims and dives well, but travels slowly on land. Its fur is of little value.



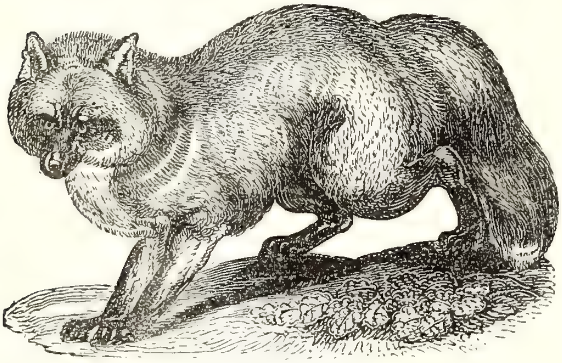
Pine Marten.

The *Skunk* (*Mephitis Americana*), with which every farmer is well acquainted, is thus described by Dr. Godman. "Pedestrians, called by business or pleasure to ramble through the country during the morning or evening twilight, occasionally see a small and pretty animal a short distance before them in the path, scampering forward without appearing much alarmed, and advancing in a serpentine direction. Experienced persons generally delay long enough to allow this unwelcome fellow-traveler to withdraw from the path. It would be prudent to rest content with pelting this quadruped from a safe distance, or to drive it away by shouting loudly; but most inexperienced persons, the first time such an opportunity occurs, rush forward with the intention of running the animal down. This appears to be an easy task; in a few moments it is almost overtaken; a few more strides, and the victim may be grasped by its long and waving tail; but that tail is now suddenly curled over the back, the animal's pace is slackened, and in one instant, the condition of things is entirely reversed; the lately triumphant pursuer is eagerly flying from his intended prize, involved in an atmosphere of stench, gasping for breath, or blinded and smarting with pain, if his approach were sufficiently close to admit of his being struck in the eyes by the pestilent fluid of the skunk." This is secreted in a few glands, and when scattered upon the body of its enemies, or even in the air, is sufficient to disarm the violence of most quadrupeds, and induce man himself to avoid rather than to seek an encounter. This animal inhabits the whole of North America. It is generally found in forests, making its den in the hollow of an old tree. It feeds upon the young and eggs of birds, on small quadrupeds, and wild fruits.

The *Weasel* (*Putorius vulgaris*) is the smallest of the class to which it belongs, and is an active and handsome little animal. It moves by unequal leaps, and can spring several feet from the ground, or run up a wall without difficulty. When it enters a hen-roost, it never meddles with the cocks or old hens, but makes choice of the young chickens, which it kills with a single stroke on the head, and carries away one after another. The eggs it sucks with incredible avidity, making a small hole at one end, through which it licks out the yolk. It also climbs into pigeon-houses, and up to the nests of sparrows, where it commits great havoc. It may be tamed, and is then very good-tempered and exceedingly curious. Godman considers the common weasel of the country to be the identical white ermine or stoat of Europe, but Richardson affirms, that the European weasel is indubitably an inhabitant of America. One or the other of these naturalists must be mistaken, or both the European ermine and weasel are found here.

Otter. The American otter (*Lutra Canadensis*) inhabits the whole continent; it is about three and a half feet long, and is covered with a very thick, fine fur, which is an article of commerce. The otter lives principally in the water, and feeds on fish. This creature has a singular way of amusing itself, by sliding down hills of snow, or smooth banks of earth, upon its belly. The sea otter (*Lutra marina*), which is of the size of a large mastiff, is found only near the salt water, from 49° to 60° north latitude. Its fur sells at a high price in China, and it is taken in great numbers on the northwest coast, in nets or from boats.

The *Red Fox* (*Vulpes fulvus*) of America is common, and is much hunted during the autumn and winter by the sportsmen, who pursue him with packs of hounds. They are not mounted, as in England, but go on foot, and shoot him when he comes within reach of a bullet or buck-shot. He is also frequently taken in steel traps. He possesses all the art of his European brother, but his brush is finer, and he is altogether a superior animal. He is very common in the wooded districts of the northern fur-countries, about 8,000 skins being annually imported into England from thence. This species preys much on the smaller animals of the rat tribe, but it is fond of fish, and rejects no kind of animal food that comes in its way. It hunts its food chiefly in the night.


Red Fox of America.

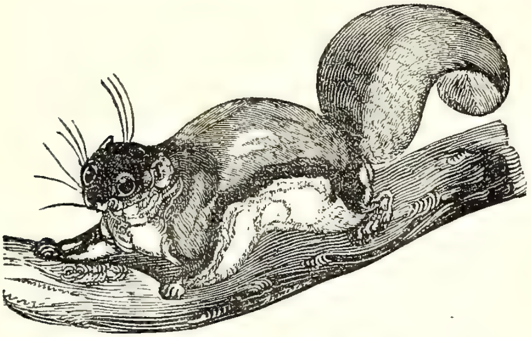
The *Arctic Fox* (*Vulpes lagopus*) is found in the northern parts of America, and is very abundant around Hudson's Bay. In its winter dress, it is of a pure white color. It breeds on the seacoast, principally within the arctic circle, forming burrows in sandy spots. Its fur is of small value, but its flesh is palatable. The *Sooty Fox* (*Vulpes fuliginosus*) is a mere variety of the arctic fox. It is of a blackish-brown color. The *Cross Fox* is considered as a variety of the red fox. Its fur is very valuable. The *Black* or *Siberia Fox* is more rare than the cross fox. There are seldom more than four or five of them taken during a season. Its fur is six times the value of that of any other fox in North America. The *Gray Fox* is sometimes, though rarely, found in Canada, but frequents the southern parts of the United States.

Squirrels. At the approach of autumn, a stranger will occasionally be saluted from some neighboring tree by a succession of sharp sounds, uttered with the greatest rapidity. While he is looking round to discover the cause, he will be at one moment inclined to laugh, at another to be angry. He will at length perceive, on one of the highest branches of the tree, a squirrel in violent agitation, looking down upon him, and seeming to utter a torrent of invective. Sometimes the little orator's throat appears to express a sort of elvish indignation, and then again to be filled with Billingsgate. It will require no great effort of imagination for the listener to fancy himself assailed by every epithet which ridicule, defiance, and contempt may suggest. This animal is the *Common red Squirrel.*

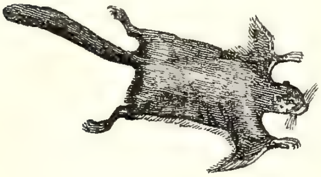
Red Squirrel.

The *Black Squirrel* (*Sciurus niger*) is abundant in most parts of the Middle States, and in size and habits resembles the American gray squirrel. Its color is usually a jet black. It is a beautiful animal, possessing all the vivacity of its genus; it climbs the tops of the highest trees, leaping fearlessly from branch to branch; sometimes it descends to the ground, and may be seen passing rapidly along at great leaps. *The Common Gray Squirrel* is abundant.

The *Great-tailed Squirrel*, so called from the length of its tail, is common on the Missouri. It is of grayish-black color, and is very graceful and active. The *Line-tailed Squirrel* inhabits the Missouri country, where it builds its nest in the holes and crevices of rocks. It is fond of the naked cliffs where there are but few bushes, and very rarely ascends a tree. It feeds on the buds, leaves, and fruits of plants. It is of an ash color, intermixed with white hairs. Its fur is coarse, and the tail, which is very long, is marked with three black lines on each side. The *Four-lined Squirrel* is found on the Rocky Mountains. Its nest is composed of a great quantity of the branches of different kinds of trees and of other vegetable productions. It does not ascend trees by choice. This squirrel is marked on the head and back with white lines. It is exceedingly active and industrious.


Rocky Mountain Flying Squirrel.

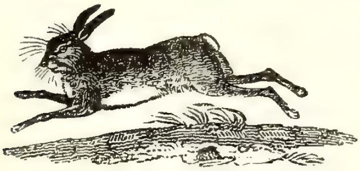
The ***Rocky Mountain Flying Squirrel*** lives in thick pine forests, and seldom leaves its retreat except at night. It is of a yellowish-brown color, and has a thick and long tail. The *Camas Rat*, or *Gopher*, is found on the Oregon and Missouri rivers. It lives beneath the surface of the earth, and eats roots. The head appears large and clumsy, owing to its cheek-pouches. The root of the camas plant is its favorite food, from which it derives its name. It is said by Schoolcraft to employ its pouches in carrying dirt out of its hole, and Richardson adopts this account as true; but an intelligent individual, who has spent much time in the country which it frequents, assures us, that he has often seen the gopher at work, and that it brings up the dirt with its broad feet. The quantity that it will throw out in a short space of time, is truly astonishing. The *Cat Squirrel*, which is the largest species in the United States, is occasionally found in Pennsylvania and New York.


Common Flying Squirrel.

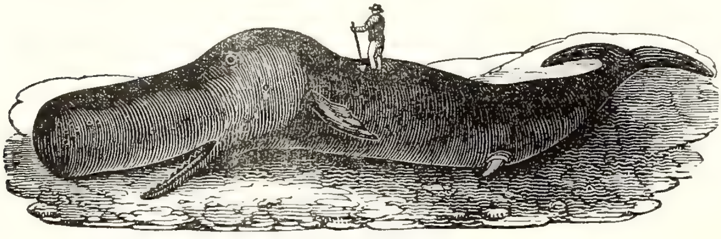
The *Flying Squirrel* (*Peteromys volucella*) is very abundant in various parts of the country. It is much admired for the softness of its fur, and the gentleness of its disposition. The skin of the sides is extended from the fore to the hind limbs, so as to form a sort of sail, which enables it to descend swiftly from a great height, in the easiest and most pleasant manner, often passing over a considerable space. This squirrel is small, of an ash color above, and white beneath, with large, prominent, black eyes. It builds its nest in hollow trees.

The *Ground* or *Striped Squirrel* (*Sciurus Lysteri*) is abundant in all our woods. It is sometimes called *Harkee*, and, in New England, is usually denominated the *Chip Squirrel*. It differs very much from other squirrels in its habits. It never makes its nest in the branches of trees, but burrows near the roots. These burrows extend to a considerable distance under ground, and are always provided with two openings.

The *Urson*, or *Canada Porcupine* (*Histrix pilosus*), is occasionally met with in Pennsylvania and the western part of the State of New York; further north and west it is abundant. It resembles the beaver in shape, its skin being armed with sharp spines or quills, which serve for defence; the Indians use these for ornamenting their moccasins and various other articles of dress. The porcupine dislikes water, and is fearful of wetting himself. He makes his habitation under the roots of hollow trees, sleeps a great deal, and feeds chiefly upon the bark of juniper. In winter, the snow serves him for drink; in summer, he laps water like a dog.


American Hare.

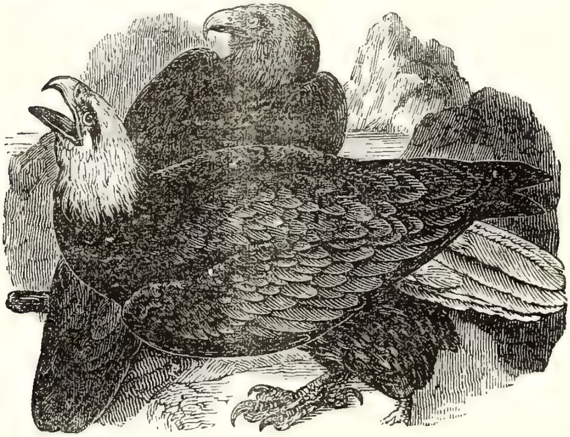
The Hare. The animal (*Lepus Americanus*), which is generally, but erroneously, called *rabbit* in this country, is a species of hare considerably inferior in size to that of England. It is abundant in different parts of America. Large numbers are annually destroyed for the sake of their flesh and fur. It never burrows in the ground like the common European rabbit, but during the daytime, remains crouched in its form, which is a mere space of the size of the animal, upon the surface of the ground, cleared of grass, and sheltered by some plant. The best time for studying its habits is during moonlight nights, when it is to be seen sporting with its companions in unconstrained gambols, frisking with delighted eagerness around its mate, or busily engaged in cropping its food.



Spermaceti Whale.

The *Cachalot* or *Spermaceti Whale* (*Physeter macrocephalus*) is found in the nortnern seas. These animals are often seen in herds of 200, and, when attacked by men in boats, 10 or 12 are sometimes killed. The *Small-eyed* or *Black-headed Spermaceti Whale* is one of the most formidable monsters of the deep. It is more than 50 feet in length, and is uncommonly active. *The Narwhal* or *Sea Unicorn* is provided with a most formidable weapon on the left side of the jaw. This is perfectly straight, and as thick as the small of a man's leg ; it is whiter and harder than ivory. This whale, however, is perfectly peaceful and harmless, and is generally seen in herds. The Greenland whale fishery has much declined of late, the fishermen having been more successful in the southern Atlantic Ocean, and the Pacific.

Seals. The *Common Seal* frequents the seacoast perhaps throughout the world, but is most numerous in high northern latitudes, and is of the greatest use to the Esquimaux and other inhabitants of those frigid regions, furnishing them with all the necessaries of life. It feeds on fish, crabs, and birds. These creatures are taken in immense numbers by the Esquimaux and by sealers who go out for the purpose. The *Hooded Seal* is found on the shores of Greenland, Davis's Straits, and sometimes of Newfoundland. It is distinguished by a singular appendage which it has on the head, formed by an extension of the skin, and elevated or depressed at the pleasure of the animal. It is not determined of what use this hood may be. The *Great Seal* resembles the common seal in habits and general appearance, but may be distinguished from it by its great size and large, beard-like whiskers. It is very timid and watchful, and difficult of approach. The *Harp Seal* frequents deep bays, and the shores of Newfoundland. It is seen in large herds, and is very frolicsome. It yields a greater proportion of pure oil than is obtained from any other seal. The Esquimaux make great use of its skin. The *Fetid Seal* frequents fixed ice, and never relinquishes its old haunts. It is very solitary, and not at all timid. The *Ursine Seal* is found upon the shores of the islands between America and Kamschatka in vast herds. They are very indolent and seldom move from their station on land, but they swim with great rapidity, and remain under water for a great length of time.



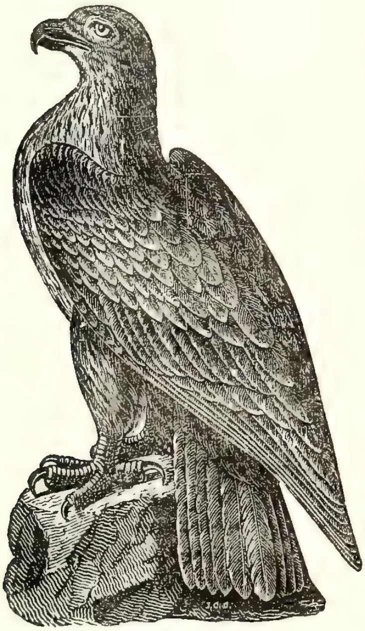
The Bald Eagle.

11. *Birds.* In the following sketch of the birds of North America, only some of the most characteristic animals of this order can be mentioned.

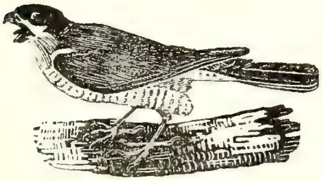
The *Bald Eagle* (*Falco leucocephalus*) is common along the coast, and particularly frequents the borders of the great lakes. Wilson thus describes it. " This distinguished bird has been long known to naturalists, being common to both continents, and occasionally met with from a very high northern latitude to the borders of the torrid zone, but chiefly in the vicinity of the sea, and along the shores and cliffs of our lakes and large rivers. Formed by nature for bearing the severest cold ; feeding equally upon the produce of the sea and the land ; possessing powers of flight capable of outstripping even the tempests themselves ; unawed by any thing but man ; and from the ethereal height to which he soars, looking abroad, at one glance, on an immeasurable expanse of forests, fields, lakes, and ocean, deep below him, he appears indifferent to the change of seasons ; as in a few moments, he can pass from summer to winter, from the lower to the higher regions of the atmosphere, the abode of eternal cold ; and thence descend at will to the torrid or the arctic regions. He is therefore found a all seasons in the countries he inhabits, but prefers such places as have been mentioned above, for the great partiality he has for fish.

" In procuring these, he displays, in a very singular manner, the genius and energy of his character, which is fierce, contemplative, daring, and tyrannical ; attributes not exerted but on particular occasions, but when put forth, overpowering all opposition. Elevated on the high, dead limb of some gigantic tree, that commands a wide view of the neighboring shore and ocean, he seems calmly to contemplate the motions of the various feathered tribes that pursue their busy avocation below ; the snow-white gulls slowly winnowing the air ; the busy tringæ coursing along the sands ; trains of ducks streaming over the surface ; cranes silent and watchful, intent and wading ; clamorous crows, and all the winged multitudes that subsist by the bounty of this vast magazine of nature.

" High over all these, hovers one, whose action arrests all his attention. By his wide curvature of wing, and sudden suspension in the air, he knows him to be the fish-hawk (*osprey, F. haliætus*,) settling over some devoted victim of the deep. His eye kindles at the sight, and balancing himself with half opened wings, on the branch, he waits the result. Down, rapid as an arrow from heaven, descends the distant object of his attention, the roar of its wings reaching the ear as it disappears in the deep, making the surges foam around. At this moment, the looks of the eagle are all ardor, and, leveling his neck for flight, he sees the fish-hawk once more emerge struggling with his prey, and mounting in the air with screams of exultation. These are the signals for our hero, who, launching into the air, instantly gives chase, and soon gains on the fish-hawk, while each exerts himself to the utmost to mount above the other, displaying in these rencontres the most elegant and sublime evolutions. The unincumbered eagle rapidly advances, and is just on the point of reaching his opponent, when, with a sudden scream, probably of despair and honest execration, he drops the fish. The eagle, poising himself for a moment, as if to take a more certain aim, descends like a whirlwind, snatches it in his grasp ere it reaches the water, and bears his ill-gotten booty silently away to the woods." The *Sea Eagle* (*F. ossifragus*) is also common in the Middle States, as in other parts of the country. In his habits, he resembles the Bald Eagle.



Washington Eagle.

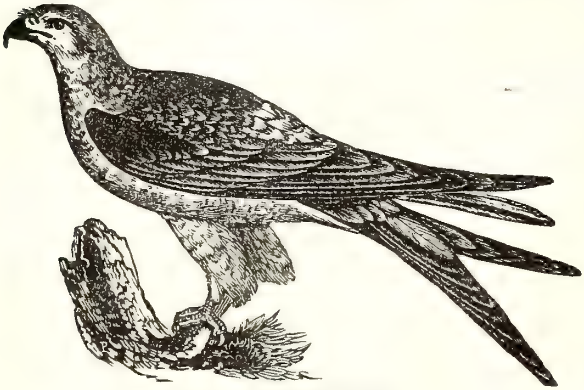


The Sparrow Hawk.

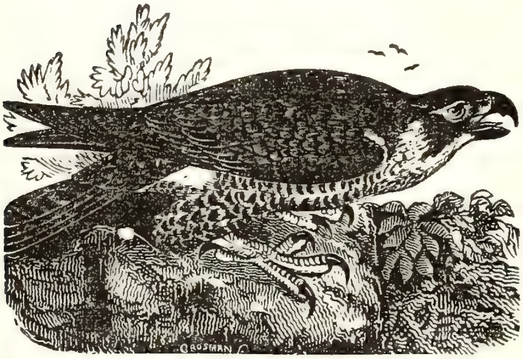
The *Washington Eagle* (*F. Washingtonianus*) is seldom or never seen except in the Western States. It resembles pretty nearly the great sea-eagle described by Wilson, and well known by naturalists in Europe and America. The male bird weighs 14½ pounds, and measures 3 feet and 7 inches in length, and 10 feet and 2 inches in extent. The *Condor* is found among the Rocky Mountains, but it will be more appropriately described under South America, as the Andes seem to be its peculiar home.

The *Sparrow Hawk* (*F. sparverius*) is found in various parts of the United States. It builds its nest in a hollow tree, pretty high up, where a large limb has been broken off. The habits and manners of this bird are well known It flies rather irregularly. It perches on the top of a dead tree or pole in the middle of a field ; and sits there in an almost perpendicular position sometimes for an hour at a time, frequently jerking its tail, and reconnoitring the ground below, in every direction, for mice and lizards, &c. It approaches the farm house particularly in the morning, skulking about the barn yard for mice or young chickens. It frequently plunges into a thicket after small birds, as if at random, but always with a particular and generally a fatal aim. Though small snakes, mice and lizards be favorite morsels with this active bird, yet we are not to suppose it altogether destitute of delicacy in feeding. It will seldom or never eat of anything that it has not itself killed; and even that, *if not in good eating order*, is sometimes rejected.

The *Swallow-tailed Hawk* (*F. furcatus*) is a very elegant species, which inhabits the southern districts of the United States in summer. It is very abundant in South Carolina and Georgia, and still more so in West Florida, and the extensive prairies of Ohio and Indiana. They feed on locusts and on a species of lizard which is very numerous in that part of the country, — and are said also to devour small green snakes. The flight of this bird is easy and graceful, with sometimes occasional sweeps among the trees.



The Swallow-tailed Hawk



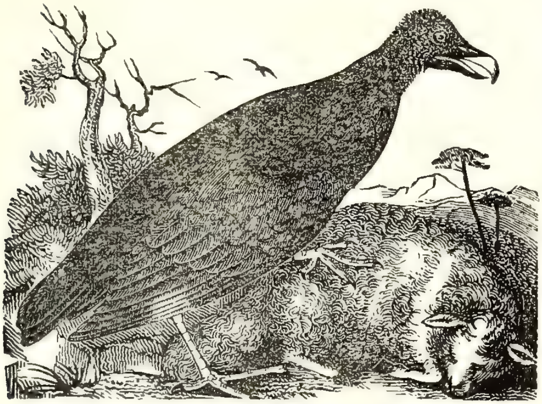
The Peregrine Falcon.

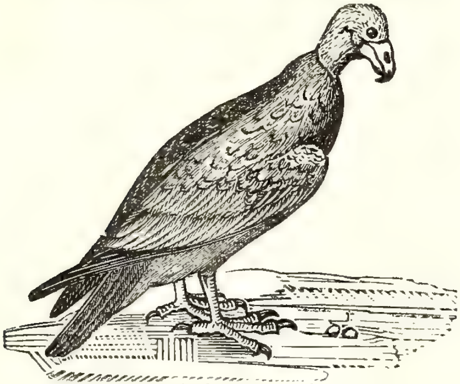
The *Peregrine Falcon* (*F. peregrinus*), which is known on our coast by the name of duck-hawk, is identical with the gyr-falcon, or peregrine falcon of Europe. It is not a numerous species, but is seen occasionally in New England and the Middle States. It is the same that was formerly used by the nobility of England in falconry, and was, by way of eminence, called the falcon. It is one of the most fierce and powerful of birds, and is said to sacrifice even wild geese to its rapacity. It is described as darting with the rapidity of an arrow upon its prey; it will often attack the wild duck when on the wing, and strike it down with its formidable feet, permitting the duck to fall previously to securing it. It is said to follow the steps of the sportsman, knowing that the ducks will then rise on the wing. The duck hawk builds his nest in the gloomy recesses of cedar forests, and rears its young secure from all molestation. Its screams somewhat resemble those of the bald eagle.

The *Black Vulture* (*Cathartes iota*) has sometimes been confounded with the turkey buzzard; but they are much darker in their plumage than the latter, and do not even associate with them. Their mode of flight also differs from that of the turkey buzzard; the latter, though found in the vicinity of towns, rarely ventures within them; it is not so impatient of cold as the former, and is likewise less lazy. In the towns and villages of the south, the black vultures may frequently be seen sauntering about the streets, sunning themselves on the roofs of the houses, and the fences; or, if the weather be cold, cowering around the tops of the chimneys, to enjoy the benefit of the heat, which to them is a peculiar gratification. They are protected by law or usage; and may be said to be completely domesticated, being as common as the domestic poultry, and equally familiar. The inhabitants generally are disgusted with their filthy habits; but notwithstanding, being viewed as contributing to the removal of the dead animal matter, which, if permitted to putrefy during the hot season, would render the atmosphere impure, they have a respect paid them as scavengers, whose labors are subservient to the public good.

The *Turkey Buzzard* (*C. aura*) is found in vast flocks in the southern parts of the United States, where it is of great utility in destroying snakes and vermin, and in devouring the dead and putrid carcasses. This bird is about the size of a turkey; the head and neck are bare of feathers, and of a reddish color, and the sides of the head warted like those of the turkey; the whole plumage is a brownish black, with a purple and greenish gloss in different directions.

The turkey buzzards are gregarious, peaceable, and harmless; never offering any violence to a living animal, nor depriving the husbandman of his stock. Hence, though in consequence of their filthy habits they are not beloved, yet they are respected for their usefulness, and, in the Southern States, where they are most needed, they, as well as the black vultures, are protected by a law, which imposes a fine on those who wilfully deprive them of life. They generally roost in flocks, on the limbs of large trees; and they may be seen on a summer's morning, spreading out their wings to the rising sun, and remaining in that posture for a considerable time.


Black Vulture.


Turkey Buzzard.

The sense of smell in the turkey buzzard is astonishingly exquisite, and they never fail to discover carrion, even when at the distance of several miles. When once they have found a carcass, if not molested, they will remain in the place till the whole is devoured. At such times, they eat so immoderately, that frequently they are incapable of rising, and may be caught without difficulty; but few that are acquainted with them, will have the temerity to undertake the task. A man in Delaware, some years since, observing some turkey buzzards regaling themselves upon the carcass of a horse, which was in a highly putrid state, conceived the design of making a captive of one, to take home for the amusement of his children. He cautiously approached, and springing upon the unsuspecting group, grasped a fine plump fellow in his arms, and was bearing off his prize in triumph; when lo! the indignant vulture disgorged such a torrent of filth in the face of our hero, that it produced all the effects of the most powerful emetic, and forever cured him of his inclination for turkey buzzards.

The favorite residence of the ***Great Horned Owl*** (*Strix Virginiana*) is in the dark solitudes of deep swamps covered with a growth of gigantic timber; and here, as soon as evening draws on, and mankind retire to rest, he sends forth such sounds as seem scarcely to belong to this world. "Along the mountainous shores of the Ohio," says Wilson, "and amidst the deep forests of Indiana, alone and reposing in the woods, this ghostly watchman has frequently warned me of the approach of morning, and amused me by his singular exclamations; sometimes sweeping down and around my fire, uttering a sudden *Waugh O! Waugh O!* sufficient to have alarmed a whole garrison. He has other nocturnal solos, no less melodious, one of which very strikingly resembles the half suppressed screams of a person suffocated or throttled, and cannot fail of being exceedingly entertaining to a lonely benighted traveller, in the midst of an Indian wilderness."

Great Horned Owl.

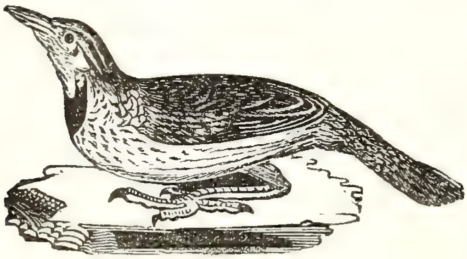
This species inhabits the country round Hudson's Bay; and according to Pennant, who considers it a mere variety of the Eagle Owl of Europe, is found in Kamtschatka, and extends even to the Arctic regions, where it is found white, and occurs as low as Astrachan

It has also been seen white in the United States. It preys on young rabbits, squirrels, rats, mice, partridges, and small birds of various kinds. It has been often known to prowl about a farm house, and carry off chickens from the roost. The great horned owl is not migratory, but remains with us the whole year. He is very rarely seen abroad by day, and never but when disturbed. The nest is generally placed in the fork of a tall tree ; it is constructed of sticks piled in considerable quantities, and lined with dry leaves and a few feathers. The female lays four white eggs, nearly as large as those of a hen.

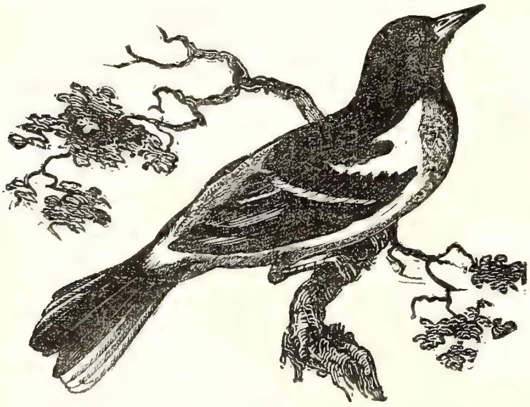
Mr. Audubon gives the following amusing description of the *Barred Owl* (*S. Nebulosa*), which is very abundant in Louisiana. " How often when snugly settled under the boughs of my temporary encampment, and preparing to roast a venison steak or the body of a squirrel, on a wooden spit, have I been saluted with the exulting bursts of this nightly disturber of the peace, that, had it not been for him, would have prevailed around me, as well as in my lonely retreat ! How often have I seen this nocturnal marauder alight within a few yards of me, exposing his whole body to the glare of my fire, and eye me in such a curious manner, that had it been reasonable to do so, I would have invited him to walk in and join me in my repast, that I might have enjoyed the pleasure of forming a better acquaintance with him. The liveliness of his motions, joined to their oddness, have often made me think, that his society would be at least as agreeable as that of many of the buffoons we meet with in the world."

The *Screech Owl*, though found in the Southern States, is very rare there. Mr. Flint says of the owls, " we have noted a great many varieties of this bird. Their hooting and screaming, in every variety of tone and sound, often imitating the cry of human distress or laughter, and sometimes the shrieks of a babe, are heard all over this valley, in the deep forests and bottoms. We have heard forty at a time in the lower courses of the Mississippi."

The *Meadow Lark* (*Alauda magna*) frequents pastures, fields, and meadows, where it finds an abundant supply of seeds and insects. It generally alights on trees or bushes at the tops of the branches, where it sends forth a long, clear, and melancholy note, that in sweetness and tenderness of expression is not equalled by any of our warblers. The nest is built in a thick tuft of grass, and is composed of dry grass, laid with great regularity. It is rarely or never seen in the depths of the woods. In Virginia, this bird is called the *Old-Field Lark*.


Meadow Lark.

The *Baltimore Oriole* (*Icterus Baltimore*) derives its name from its colors ; being black and orange, which are those of the livery of Lord Baltimore. In the formation of his nest he displays superior skill, and is so solicitous to procure proper materials, that he will often carry off thread that is bleaching, the farmer's young grafts and the strings that tie them, to serve his purposes in building. His food consists of bugs, caterpillars, and beetles, and his song, which is wild and playful, is a clear, mellow whistle, which he repeats at intervals. He is honored with a variety of names, such as hang-nest, hanging-bird, golden robbin, firebird, &c.


Baltimore Oriole.

The *Redwinged Oriole, or Black Bird* (*I. phœniceus*), is known by a variety of names, as the swamp blackbird, corn or maize thief, marsh blackbird, &c. They are migratory in the Northern States, but are found during the winter in the Middle and Southern States, in immense numbers, where the profuse gleanings of the rice, corn, and buckwheat fields supply them with abundant food. With this harmless plunder they are not satisfied, but find great satisfaction in eating the young and tender corn, at which time they make great havoc They build their nests in swampy places, of reeds and grass They are very solicitous for the safety of their nests and young ; and if they are destroyed or carried away, they will continue near the place several days restless and dejected. In captivity they soon become familiar.

Redwinged Oriole.

The *Orchard Oriole* (*I. spurius*) differs from the preceding in its color, size, and notes, which are not so full, but uttered with more rapidity. Wilson thus speaks of one which he reared from the nest. "It had an odd method of moving its head and neck slowly, regularly, and in various directions, when intent on observing any thing, without stirring its body. This motion was as slow as that of a snake. When, at night, a candle was placed near its cage, it seemed extremely well pleased, fed and drank, dressed, shook and arranged its plumage, sat as close to the light as possible, and sometimes chanted a few irregular notes, as I sat reading or writing beside it."

The Rice Bunting.

The *Rice Bunting* (*I. agripennis*), which is commonly called boblink in the Northern States, and reed-bird in the Middle, though small in size, is not so in consequence. His coming is hailed by the sportsman with pleasure ; while the careful planter looks upon him as a devouring scourge, and worse than a plague of locusts. These birds do great damage to early wheat and barley, and devour Indian corn with great eagerness. They pour down upon the oat fields in a torrent, and resort to the Middle States in immense numbers, to feed upon the wild oats. In the autumn they swarm in the rice fields at the south, and devour great quantities of that grain. They have, however, three good qualities ; their plumage is beautiful, their song highly musical, and their flesh excellent.

The *Magpie* (*Corvus pica*) is confined in this country to the northern regions, and to the extensive plains of the Rocky Mountains, west of the Mississippi. Thence they continue to the banks of the Columbia and the Missouri. It is very remarkable that this bird is not found in the eastern parts of the United States. Mr. Nuttall remarks, that "the absence of food and shelter for their nests in summer, suitable for the magpie, on the vast prairies of the Arkansas and Missouri, particularly toward the sandy deserts at the foot of the Rocky Mountains, will probably continue as a perpetual barrier to the eastern migrations of this mischievous species, whose means of flight and traveling are more circumscribed than those of the common crow."

The magpie is common in England, France, and other parts of Europe, and European writers have furnished us with many descriptions of them. These birds are often seen perched upon the back of an ox or sheep, picking up the insects to be found there, chattering and tormenting the poor animal at the same time, and stretch out their necks for combat, if the beast turns its head backward to apprehend them. They seek out also the nests of birds ; and if the parent escapes, the eggs make up for the deficiency. No food seems to come amiss to this bird ; it shares with ravens in their carrion, with rooks in their grain, and with the cuckoo in their eggs ; but it seems possessed of a providence seldom usual with gluttons ; for when it is satisfied for the present, it lays up the remainder of the feast for another occasion. It will even in a tame state hide its food when it has done eating, and after a time return to the secret hoard with renewed appetite and vociferation. The magpie's nest is built with surprising labor and ingenuity.

The body of the nest is composed of hawthorn branches ; the thorns sticking outward, but well united together by their mutual insertions. Within it is lined with fibrous roots, wool, and long grass, and then nicely plastered all round with mud and clay. The body of the nest being thus made firm and commodious, the next work is to make the canopy, which is to defend it above. This is composed of the sharpest thorns, woven together in such a manner as to deny all entrance except at the door, which is just large enough to permit egress and regress to the owners. This bird, in its domestic state, preserves its natural character with strict propriety. The same noisy, mischievous habits attend it to the cage, that marked it in the woods; and being more cunning, so it is a more docile bird than any other taken into keeping.

The Magpie.

The *Blue Jay* (*C. cristatus*) is peculiar to North America, and is distinguished as a kind of beau among the feathered tribes of our woods. He has not only a fine note of his own, but possesses great talents for mimicry. When disposed for ridicule, there is scarcely a bird whose peculiarities of song he cannot imitate. While engaged in this sport, he accompanies his various songs with numberless nods, jerks, and gesticulations. By these means he makes himself extremely disliked, and is particularly dreaded by the owl, who is treated by him with the greatest insolence and contempt. The Jay feeds on chestnuts, acorns, and Indian corn, and very frequently sucks the eggs, and devours the young of other birds, thus spreading alarm and sorrow round him.

Blue Jay.

Steller's Jay (*C. Stelleri*) is a very elegant bird. The head, neck and crest, and part of the back, are of a brownish black, the throat grayish, and the rest of the plumage of a beautiful blue. The feathers on the front of the head are tipped with blue. One specimen of this bird was shot near Columbia river, and another of more brilliant plumage, in Mexico. Of its habits little or nothing is known. It inhabits the western territories of the United States beyond the Rocky Mountains.

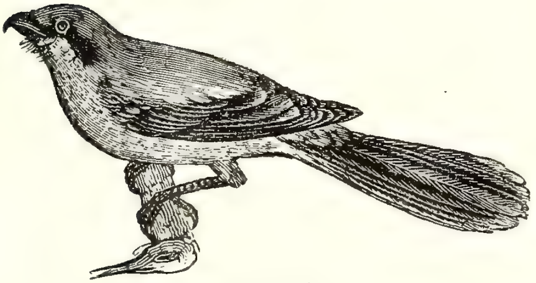
The *Florida Jay* (*C. Floridanus*) is not confined to that country, but is found in Louisiana, and extends northward to Kentucky. It is very abundant in East Florida, where it is found at all seasons in low bushes. Their notes are varied greatly, and resemble those of the thrush and blue jay. Mr. Ord, who has studied this species, says that they are quarrelsome, active, and noisy, and construct their nests in thickets.

The *Canada Jay* (*C. Canadensis*) is wholly confined to the northern parts of America, and is found in numbers around Hudson's Bay. These birds build their nests in pine trees. Like the rest of the jays, they are great pilferers, great prattlers, and much given to mischief. They rove about in winter in search of food, and are sometimes bold enough to enter the tents, and snatch the meat from the dishes. Their usual food is berries, worms, and insects.

The *Cedar Bird*. This charming bird (*Bombycilla Carolinensis*) is found throughout North America. Their principal food consists in berries of all kinds, and they are very partial to cherries and other fruits. In the spring they render essential service to the farmer by ridding his trees of caterpillars, beetles, and insects. They are very social and affectionate in their intercourse with one another; flying in large flocks, and even building nests on the same tree.

Cedar Bird.

The *Great American Shrike* (*Lanius septentrionalis*), or butcher-bird, is full of energy, and his character is entitled to no small degree of respect. His activity is visible in all his motions; his courage and intrepidity are beyond those of every other bird of his size, and in affection for his young he is surpassed by no other. He attacks the largest hawk or eagle in their defence, with a resolution truly astonishing, so that all of them respect him, and on every occasion decline the contest. He has an extraordinary habit of sticking his surplus food on thorns and bushes, where it soon dries, and becomes useless. In confinement, he does the same thing, and hangs up insects, and food upon nails, fixed up for the purpose. He builds his nest of grass and weeds in the deepest forests.

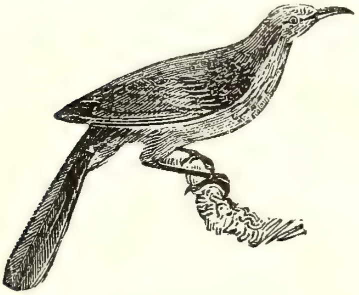


Great American Shrike.

The *Tyrant Fly-catcher, or King Bird* (*Muscicapa tyrannus*), has obtained the appellations of king and tyrant, for the extraordinary authority he uses over other birds in the breeding time. His extreme affection for his mate, nest, and young, makes him suspicious of every bird that comes near his residence, so that he attacks every intruder without discrimination; hawks and crows, and the bald eagle himself, all equally dread a rencontre with this merciless champion, who darts down upon their backs with great violence, fixing himself there, and all the time keeping up a shrill and rapid twittering. He annoys the farmer very much by his partiality to bees. These, with other insects, form his principal food, and he displays great skill in catching them. He feeds also on berries of different kinds.

The *Mocking Bird* (*Turdus polyglottus*). This celebrated and extraordinary bird is not only peculiar to the new world, but inhabits a very considerable portion of both North and South America. A warm climate and low country seem most congenial to their nature; they are therefore much more numerous in the Southern States. The berries of the red cedar, myrtle, holly, gum berries, gall berries, and a profusion of others, with which the luxuriant swampy thickets of those regions teem, furnish them with a perpetual feast. Winged insects, also, which abound there even in winter, form a favorite part of their food.

The mocking bird builds his nest in different places, according to the latitude in which he resides. A solitary thorn-bush; an almost impenetrable thicket; an orange tree, cedar, or holly-bush are favorite spots. Always ready to defend, but never over anxious to conceal his nest, he very often builds within a small distance of a house; and not unfrequently in a pear or apple tree, rarely higher than six or seven feet from the ground. The nest is composed of dry twigs, weeds, straw, wool, and tow, ingeniously put together, and lined with fine fibrous roots. During the time when the female is sitting, neither cat, dog, animal, nor man, can approach the nest without being attacked. But the whole vengeance of the bird is directed against his mortal enemy the black snake. Whenever this reptile is discovered, the male darts upon it with the rapidity of an arrow, dexterously eluding its bite, and striking it violently and incessantly against the head, where it is very vulnerable. The snake soon becomes sensible of his danger, and seeks to escape; but the intrepid bird redoubles his exertions, and as the snake's strength begins to flag, he seizes and lifts it up from the ground, beating it with his wings,



Mocking Bird.

and when the business is completed, he returns to his nest, mounts the summit of the bush, and pours out a torrent of song in token of victory.

The plumage of the mocking bird has nothing gaudy or brilliant in it; but that which so strongly recommends him is his full, strong, and musical voice, capable of almost every modulation, from the mellow tones of the wood thrush, to the savage screams of the bald eagle. In his native groves, mounted on the top of a tall bush, in the dawn of a dewy morning, while the woods are already vocal with a multitude of warblers, his admirable song rises preëminent over every competitor. The ear can listen to his music alone. Nor is the strain altogether imitative. His own native notes are bold and full, and varied seemingly beyond all limits. They consist of short expressions of two, three, or five and six syllables, generally interspersed with imitations, all of them uttered with great emphasis and rapidity; and continued for an hour at a time with undiminished ardor. His expanded wings and tail glistening with white, and the buoyant gayety of his action arresting the eye, as his song most irresistibly does the ear. He sweeps round with enthusiastic ecstacy; he mounts and descends as his song swells or dies away; and as Mr. Bartram has beautifully expressed it, "he bounds aloft with the celerity of an arrow, as if to recover or recall his very soul, expired in the last elevated strain." While thus exerting himself, a bystander would suppose that the whole feathered tribe had assembled together on a trial for skill, so perfect are his imitations.

Mr. Audubon furnishes us with the following comparison between the mocking bird and the nightingale. "The musical powers of this bird have often been taken notice of by European naturalists, and persons who find pleasure in listening to the songs of different birds, whilst in confinement or at large. Some of these persons have described the notes of the nightingale as occasionally fully equal to those of our bird. I have frequently heard both species in confinement and in a wild state, and without prejudice, have no hesitation in saying, that to compare her essays to the finished talent of the mocking bird, is, in my opinion, quite absurd."

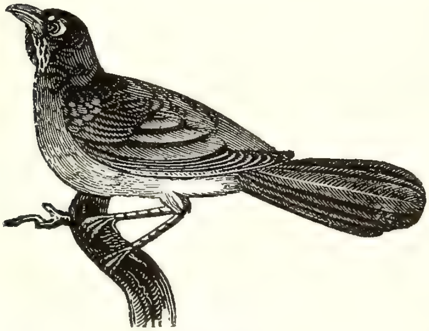
The mocking bird loses little of the power and energy of his song by confinement. In his domesticated state, when he commences his career of song, it is impossible to stand by uninterested. His excessive fondness for variety, however, in the opinion of some, injures his song. His elevated imitations of the brown thrush are frequently interrupted by the crowing of cocks; and the warblings of the blue bird, which he exquisitely manages, are mingled with the screaming of swallows or the cackling of hens; amidst the simple melody of the robin, we are suddenly surprised by the reiterations of the whip-poor-will; while the notes of the kildeer, blue jay, martin, Baltimore, and twenty others, succeed with such imposing reality, that we look round for the originals, and discover, with astonishment, that the sole performer in this singular *concert*, is the admirable bird before us. Both in his native and domesticated state, during the solemn stillness of night, as soon as the moon rises in silent majesty, he begins his delightful solo, and serenades us the live-long night with a full display of his vocal powers, making the whole neighborhood ring with his inimitable melody. The mocking bird is nine and a half inches long. The upper parts of the head, neck, and back, are a dark brownish ash; the under parts are of a brownish white. His figure is well proportioned, and even handsome.

The ***Ferruginous Thrush*** (***T. rufus***) the brown thrush or thrasher of the Middle and Eastern States, and the French mocking bird of Maryland, Virginia, and the Carolinas. It is the largest of all our thrushes, and is a well known and distinguished songster. From the tops of apple or cherry trees, he salutes the opening morning with a charming song, which is loud, emphatical, and full of variety. These notes are not imitative, but solely his own. At that serene hour you may plainly distinguish his voice for half a mile's distance. He builds his nest in a thorn bush, low cedar, thicket of briers, or in a cluster of vines. It is constructed of small sticks, dry leaves, and fibrous roots. He often attacks the black snake, in defence of his young, and with success, as his bill is strong and powerful. He is an active and vigorous bird, flying generally low from one thicket to another, with his broad tail spread out like a fan; he has a single note or chuck when you approach his nest. He is easily reared, and becomes familiar in confinement.

The Ferruginous Thrush.

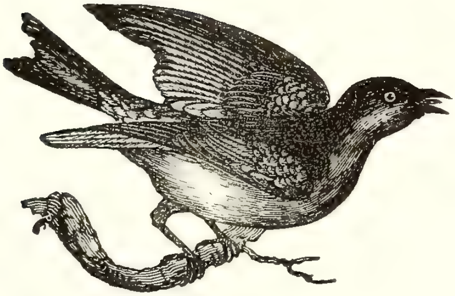
The ***Robin*** (***T. migratorius***) is known universally, and is deservedly a great favorite. It is found in immense numbers in the Atlantic States, from New

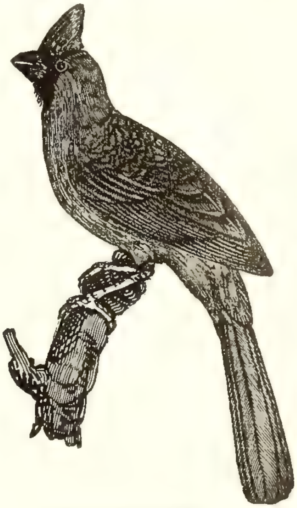
Hampshire to Carolina. The robin is one of our earliest songsters. His notes in spring are everywhere known and everywhere beloved. They are, as it were, the prelude to the grand general concert that is about to burst upon us from woods, thickets, and fields, whitened with blossoms, and breathing fragrance. He possesses much suavity of manners, and almost always seeks shelter for his young in summer, and subsistence for himself, near the habitations of man. He builds a large nest on an apple tree, plasters it with mud, and lines it with fine grass. His principal food is worms, berries, and caterpillars.


The Robin.

The *Cat Bird* (*T. felivox*) is generally known but not generally admired. His manners are very odd and extremely familiar, and his notes are more remarkable for singularity than melody. In spring or autumn, on approaching thickets of brambles, the first salutation you receive is from the cat bird; a stranger, unacquainted with his note, would instantly conclude that some vagrant orphan kitten had got bewildered among the briers, and wanted assistance, so exactly does the call of the bird resemble the cry of that animal. He is one of our earliest songsters, beginning generally before break of day, and hovering from bush to bush with great sprightliness, when there is scarcely light enough to distinguish him. On listening to his song foi some time, you can perceive that he introduces into his performance all the odd sounds and quaint passages he has been able to collect. He seldom allows you time to pass his nest, either in the woods or in the garden, without paying his respects to you in the usual way. His nest is composed of dry leaves, twigs, and fine dry grass, lined with fibrous roots.

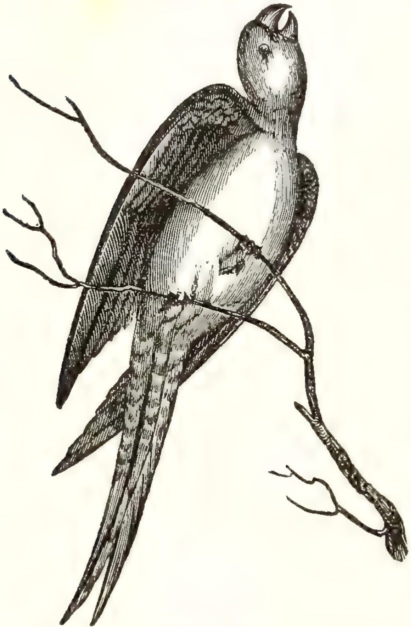
The *Blue Bird* (*Ampelis Sialis*) usually spends the winter in Virginia and the Carolinas, but is one of the first to depart for New England and Canada, at the approach of spring. He is everywhere a favorite.


Blue Bird.


Cardinal Grosbeak.

The *Cardinal Grosbeak* (*Fringilla cardinalis*) is well known, and is one of our most common cage birds. His sprightly figure and gaudy plumage, his vivacity, strength of voice, and the little expense with which he is kept, will always make him a favorite. He has great clearness and variety of tones; many of them resemble the clear notes of a fife, and are nearly as loud. Numbers of these birds have been taken to France and England, where they are called Virginia Nightingales. They feed chiefly on corn, seeds of apples, cherries, and other fruit; they are also accused of eating bees. They are numerous in all parts of North America.

The *White-winged Crossbill* (*Loxia leucoptera*) is a beautiful bird, inhabiting only the northern regions of the American continent. It breeds in the country round Hudson's Bay, and builds a nest of grass, mud, and feathers, about half way up a pine tree. It feeds on the seeds of the pine and other trees in the British possessions.



Carolina Parrot.

The *Carolina Parrot* (*Psittacus Carolinensis*) is the only species of parrot found native within the territory of the United States. The vast luxuriant tracts lying within the torrid zone seem to be the favorite residence of these noisy, numerous, and richly-plumaged tribes. The Carolina parrot inhabits the interior of Louisiana and the shores of the Mississippi and Ohio, west of the Alleghanies. It is seldom seen north of Maryland. Their private places of resort are low, rich, alluvial bottoms along the borders of creeks ; deep and almost impenetrable swamps filled with sycamore and cypress trees, and those singular *salines* or *licks* so interspersed over the western country. Here too is a great abundance of their favorite fruits. The seeds of the cypress tree and beech nuts are eagerly sought after by these birds. They generally roost in the hollow trunks of old sycamores in parties of 30 or 40 together. Here they cling fast to the sides of the tree, holding by their claws and bills. They appear to be fond of sleep, and often retire to their holes during the day, probably to take their regular *siesta*. They are extremely social and friendly towards each other. The Carolina or Illinois parrot is thirteen inches long ; the forehead and cheeks are orange red ; down and round the neck a rich and pure yellow ; the shoulder and bend of the wings also edged with rich orange red. The general color of the rest of the plumage is bright yellowish silky green, with light blue reflections. It is altogether superior in elegance of figure and beauty of plumage to many of the foreign parrots. It is docile and sociable, and soon becomes perfectly familiar.

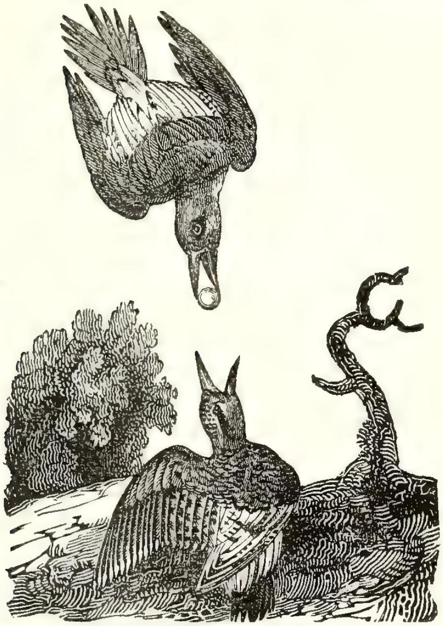
Mr. Audubon represents these Carolina parrots as doing great mischief to the fruit trees by their depredations.

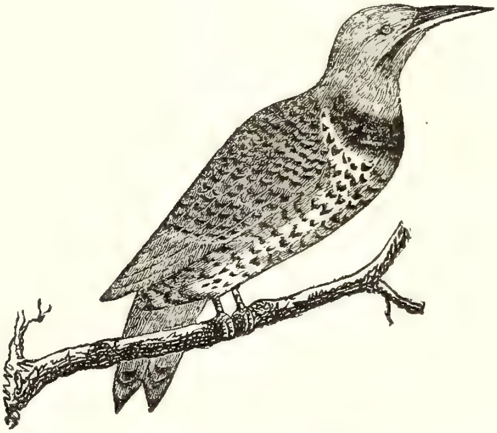
" They assail the apple and pear trees, when the fruit is yet very small and far from being ripe, and this merely for the sake of the seeds. As if through mischief, they pluck off the fruit, open them to the core, and disappointed at the sight of the seeds, which are yet soft and of a milky consistence, drop the apple or pear, and pluck another, passing from branch to branch, until the trees, which were before so promising, are completely stripped."

The same author says, that " these birds are quite at ease on trees, or any kind of plant, moving sidewise, and climbing or hanging in every imaginable posture, assisting themselves very dexterously in all their motions with their bills; they usually alight very close together. I have seen branches of trees as completely covered with them as they could possibly be. On the ground they walk slowly and awkwardly, as if their tail incommoded them. They do not even attempt to run off when approached by the sportsman, should he come upon them unawares ; but when he is seen at a distance, they lose no time in trying to hide, or in scrambling up the trunk of the nearest tree, in doing which they are greatly aided by their bills." Mr. Flint speaks of their plumage as being exceedingly brilliant, and as imparting a singular magnificence to the forest prospect, as they are seen darting through the foliage, and among the white branches of the sycamore.

Red-headed Woodpecker (*Picus erythrocephalus*). There is perhaps no bird in North America so universally known as this. His tri-colored plumage, red, white, and black, is so striking, and his predatory habits in the orchards and corn-fields, added to his fondness for hovering along the fences so very notorious, that almost every child is acquainted with the red-headed woodpecker. He may always be seen among the trees of wild cherry covered with fruit, and in passing orchards, you may easily know where to find the sweetest apples, for wherever an apple or pear is found broached by him, it is sure to be among the ripest and best flavored. But though he occasionally regales himself on fruits, his most natural food is insects, particularly those that have penetrated the body of the tree. These form, at least, two thirds of his subsistence. He generally knows, by the appearance of the bark, where they may be found ; when he is dubious, he rattles vehemently on the outside with his bill, and his acute ear distin guishes the terrified vermin shrinking within to their inmost retreats, where his pointed and barbed tongue soon reaches them.

The *Golden-winged Woodpecker* (*Picus auratus*), though not so generally known as his red-headed brother, is yet in considerable request by young sportsmen and farmers, the former of whom hold his flesh in great esteem, and the latter take every opportunity to destroy him for his attacks on the Indian corn. They employ themselves in hollowing out a tree for a nest, for several days, and may even be heard late in the evening, thumping like carpenters. They carry in no materials for a nest, and their food varies with the season. This bird is known by a variety of names, as high pole, high hole, &c.


Red-headed Woodpecker.


The Golden-winged Woodpecker.

The *Humming Bird* (*Trochilus Colubris*). This little bird is remarkable for its beauty, minuteness, want of song, and manner of feeding. There are upwards of 70 species in America and the adjacent islands, one only of which is found in the United States. This is found in Canada in great numbers, where it arrives from the south. It is wonderful how such a little creature can makes its way over such extensive regions of lakes and forests ; but its very *minuteness*, the rapidity of its flight, and its admirable instinct and courage, are its guides and protectors.

The nest of this little bird is fixed on the upper side of the branch of a tree. Instances have been known of its building on an old moss-grown trunk, or on a strong weed in the garden ; but these cases are rare. The nest is about an inch in diameter and an inch deep, formed of lichen, wings of certain flying seeds, and of the downy substance from the great mullein. The eggs are two, of a pure white. If any one approaches the nest, the little proprietors dart around with a humming sound, frequently passing within a few inches of his head. Their only note is a single chirp, not louder than that of a cricket or grasshopper.

The humming bird is extremely fond of tubular flowers, particularly of the blossoms of the trumpet-flower. When arrived before a thicket of these, that are full blown, he suspends himself on the wing for the space of two or three seconds so steadily, that his wings become invisible, or only like a mist ; the glossy golden green of his back, and the fire of his throat, dazzling in the sun, form altogether an interesting spectacle. When he alights, he prefers the small dead twigs of a bush, where he dresses and arranges his plumage with great dexterity. He is one of the few birds that are universally beloved. His flight from flower to flower greatly resembles that of a bee, but is infinitely more rapid. He poises himself on the wing, while he thrusts his long, slender tongue into the flowers in search of food. He sometimes enters a room by the window, examines the bouquets of flowers, and passes out by the opposite door or window. He has hitherto been supposed to subsist entirely on the honey which he extracts from flowers. But he is known to feed on insects, as he has been seen for half an hour at a time darting at little groups of insects with the dexterity of the flycatcher.

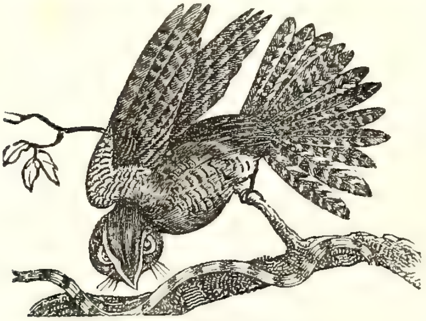
Mr. Audubon thus describes this bird in Louisiana. "The humming bird does not shun mankind as much as birds generally do. It frequently approaches flowers in the windows, or even in rooms when the windows are kept open, during the extreme heat of the day, and returns when not interrupted, as long as the flowers are unfaded. They are extremely abundant during spring and summer, and wherever a fine plant of the trumpet-flower is met with in the woods, one or more humming birds are generally seen about it, and now and then as many as 10 or 12 at a time."

The *Belted Kingfisher* (*Alcedo Alcyon*) is a general inhabitant of the banks of all the rivers from Hudson's Bay to Mexico. Amidst the roar of a cataract, or over the foam of a torrent, he sits perched upon an overhanging bough, glancing his piercing eye in every direction below for his scaly prey, which, with a sudden circular plunge, he sweeps from their native element, and swallows in an instant. Rapid streams, with high perpendicular banks, are also favorite places of resort for this bird, not only because the fish are there more exposed to view, but because those steep and high banks are the chosen situations for his nest. Into these he digs 4 or 5 feet horizontally, and carries in few materials. His voice is loud, harsh, and sudden, and not unlike the twirling of a watchman's rattle.

Belted Kingfisher.

The *Chuck-Will's-Widow* (*Caprimulgus Carolinensis*). This solitary bird is rarely found north of Virginia and Tennessee. It has sometimes been confounded with the Whip-poor-will. It has derived its name from its notes, which seem exactly to articulate those words. It commences its singular call generally in the evening, soon after sunset, and continues it with short occasional interruptions for several hours. Towards morning these repetitions are renewed. This note instantly attracts the attention of a stranger, and is strikingly different from that of the Whip-poor-will. In sound and articulation, it seems plainly to express the words which have been applied to it, pronouncing every syllable leisurely and distinctly, putting the principal emphasis on the last word. In a still evening it may be heard at the distance of nearly a mile; the tones of its voice being stronger and more full than those of the Whip-poor-will, who utters his with much greater rapidity.

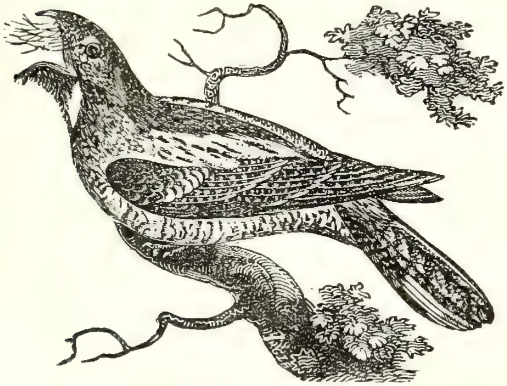
The flight of this bird is low, skimming about the surface of the ground, frequently settling on old logs or on the fences, and from thence sweeping around in pursuit of various insects that fly in the night. Like the Whip-poor-will, it prefers the declivities of glens and other deeply-shaded places, making the mountains resound with echoes the whole evening.



Chuck-Will's-Widow.

The Chuck-will's-widow lays two eggs, generally on the ground in the woods; it makes no nest. It is twelve inches long; the sides of the mouth are armed with numerous strong bristles; head and back very deep brown, powdered with cream, rust, and bright ferruginous, and marked with black; breast black, and powdered with rust.

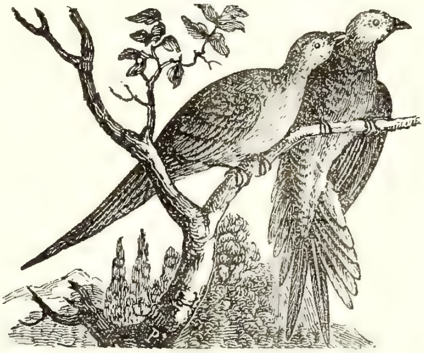
The *Whip-poor-will* (*C. vociferus*), so called from his note, which resembles those words, is a very singular bird, and universally known in the United States. During the day, it sits in the most retired and solitary parts of the woods, where it reposes. But in silence, every morning and evening, you may hear his shrill repetitions of whip-poor-will, the first and last syllables being uttered with great emphasis. When two or more of them are calling, the noise they make is really surprising. Their food appears to be large moths, grasshopers, and such insects as frequent the bark of rotten timber. They build their nests on the ground, and the young, when first hatched, can hardly be distinguished from a piece of mouldy earth.


Whip-poor-Will.

The *Passenger Pigeon* (*Columba migratoria*) is well known in all parts of the United States. The head, throat, and upper parts of the body are ash-colored ; the sides of the neck are of a glossy variable purple ; the forepart of the neck and breast are vinaceous ; the under parts of a similar color but paler ; and there is a crimson mark round the eyes. These birds visit the different parts of North America in such immense flocks, that we may justly apply to them Milton's expression of "numbers numberless."

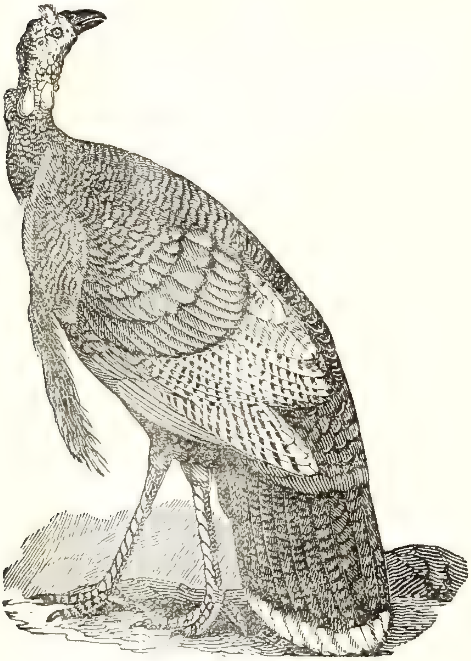
The *Carolina Pigeon or Turtle Dove* (*C. Carolinensis*). This beautiful bird is a general inhabitant, in the summer, of the United States from Canada to Florida, and from the sea-coast to the Mississippi, and far to the westward. They pass the winter in great numbers in North and South Carolina. It is a favorite bird with all those who love to wander among the woods in spring, and listen to their varied harmony. They will hear many a singular and striking performance, but none so mournful as this. Its notes are four ; the first is somewhat the highest and preparatory, seeming to be uttered with an inspiration of the breath, as if the afflicted creature were just recovering its voice from the last convulsive notes of distress ; this is followed by three long, deep, and mournful moanings, that no one can listen to without sympathy. A pause of a few minutes ensues, and then again the solemn voice of sorrow is renewed as before. There is however nothing of real distress in all this ; quite the reverse. The bird who utters it wantons by the side of his beloved partner, or invites her by his call to some favorite, retired, and shady retreat.

Passenger Pigeon.


Carolina Pigeon or Turtle Dove.

The nest is very rudely constructed, generally in an evergreen, among the thick foliage of a vine, in an orchard on an apple tree, and sometimes on the ground. It is composed of twigs and roots, making an almost flat nest. The flesh of this bird is considered superior to that of the wild Pigeon. It is 12 inches long ; it has a beautiful, glossy-black eye. The general color is a fine slate blue, reflecting in some part the most vivid tints of green, gold, and crimson. The legs and feet are red, seamed with white.

The *Wild Turkey* (*Meleagris gallipavo*) abounds in the forests and unsettled parts of the Union. They are very rare in the northern and eastern parts of the United States They were



Wild Turkey.

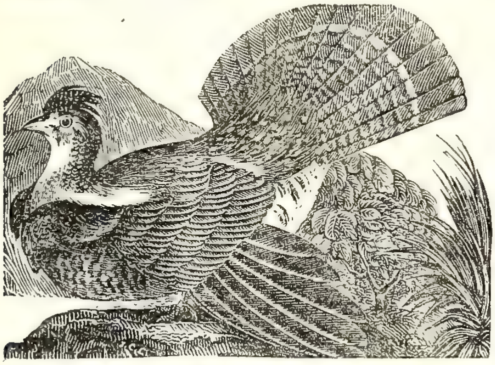
formerly abundant in Canada, but as their places of resort become settled and thickly peopled, they retire and seek refuge in the remotest recesses of the interior. In New England they appear to have been destroyed many years ago; but they are still found in the eastern parts of Pennsylvania and New Jersey. These birds do not confine themselves to any particular food, but eat corn, berries, grapes, barley, tadpoles, young frogs, and lizards. Their favorite food, however, is the peccan nut and acorn. Where there is an abundant crop of acorns, there numerous flocks of turkeys may be expected. In the autumn they direct their courses in vast numbers to the rich lands on the borders of the Ohio and Mississippi. The males and females travel separately, but all in the same direction. Before crossing a river, they assemble on the highest eminences, and remain there as if in consultation for a day or two. At length after due preparation, the leader gives a signal note, and they all wing their way to the opposite shore. Some of the young and weak fall into the water, and are obliged to swim for their lives, using all the means in their power and the most violent exertion to reach the shore. Many, however, perish in the attempt. It is observed that after these journeys, the turkeys are so familiar, that they fearlessly enter the plantations in search of food. Great numbers are killed at this time, and kept in a frozen state to be sent to distant markets.

They begin to build in April; the nest is very simple in construction, being only composed of a few dried leaves. The female lays sometimes twenty, but more usually nine or fifteen eggs, which are white, spotted with brown. Wild turkeys are very tenacious of their feeding grounds, as well as of the trees on which they have once roosted. Flocks have been known to resort to one spot for a succession of years, and to return after a distant emigration in search of food. They roost on a point of land jutting into a river where there are large trees in great numbers. When they are all quiet for the night, they are very easily shot, and an experienced hunter may secure nearly the whole flock, as the turkeys, fancying themselves secure when at roost, are not alarmed by either the sportsman or his gun.

Quails.

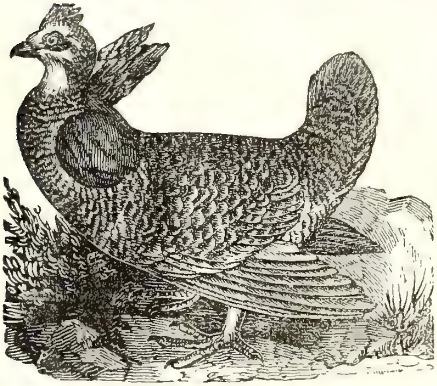
The flesh of the wild turkey is of excellent flavor, being more delicate and juicy than that of the domestic turkey; the Indians value it so highly, that they term it, when roasted, "the white man's dish." The male of the wild turkey is nearly four feet in length; the female is only three feet and a quarter long. The plumage of the male is very brilliant; and of a variety of hues. That of the female is not as beautiful. When strutting abroad and displaying himself, this bird has a very stately and handsome appearance, and appears to be quite sensible of the admiration he excites.

The *Quail* (*Perdix Virginiana*). This bird, which is called quail in New England, and partridge at the south, differs from both the partridge and quail of Europe; it being smaller than the first, and larger than the last. Quails frequent the forest, and are most numerous in the vicinity of well-cultivated plantations, where there is plenty of grain. In winter they approach the barns, and sometimes mingle with the poultry. At this time, great numbers of them are taken in traps. This interesting and beautiful bird is found from Canada to Florida.



Ruffed Grouse.

Grouse. The ***Ruffed Grouse*** (***Tetrao umbellus***) is called partridge in New England, and pheasant in the south. It always prefers the woods, is seldom or never found in open plains, but loves the pine-sheltered declivities of mountains, near streams of water. Its manners are solitary; they are seldom found in coveys of more than four or five together, and more usually in pairs, or singly. They leave the woods early in the morning, and seek the path or road to pick up gravel. They generally move along with great stateliness, their broad fan-like tails spread out. The drumming, as it is called, of the pheasant, is another singularity of the species. This is performed by the male alone, and is produced in the following manner. The bird standing on an old prostrate log, lowers his wings, erects his tail, contracts his throat, elevates the two feathers on his neck, and inflates his whole body, somewhat in the manner of a turkey cock, strutting and wheeling about with great stateliness. After a few manœuvres of this kind, he begins to strike with his stiffened wings in short and quick strokes, which at first are low and distinct, but gradually increase in rapidity till they run into each other. This is most common in the morning and evening, and may be heard half a mile off, by which means the sportsman is led to the place of his retreat.



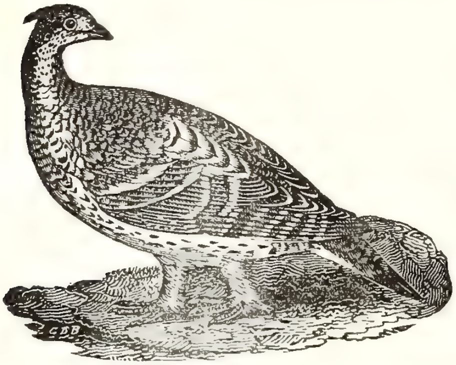
Pinnated Grouse.

The ***Pinnated Grouse***, *or* ***Heath Hen***, (*T. cupido*) chooses open, dry plains, thinly interspersed with trees, or partially overgrown with shrub oaks, for his favorite haunts. Accordingly, he is found in the plains of New Jersey, in the barrens of Kentucky, on the east plains of Long Island, and in similar situations in Pennsylvania, the Northwestern States, and the plains of Oregon. Their great inducement in frequenting these plains is probably the small acorn of the shrub oak, the strawberries, whortleberries, and partridge berries with which they abound, and of which these birds are particularly fond. The most remarkable circumstance relative to the heath hen, is, that each side of the neck is furnished with a bag of yellow skin, which, when inflated with air, resembles a ripe orange. With these the bird produces a booming sound, which consists of three notes, similar to those produced by the night-hawk.

The ***Dusky Grouse*** (*T. obscurus*) in size and color, may be compared with the black grouse of Europe. A specimen was killed by an exploring party under Major Long, in 1820, on a mountain of the chain which divides the Mississippi from the waters which flow toward the Pacific. When the bird flew, it uttered a cackling note, somewhat like that of the domestic fowl. The general color of the plumage in the female is blackish brown; that of the male is entirely black.

The *Cock of the Plains* (*T. urophasianus*) was first met with by Lewis and Clarke near the fountain of the Missouri, in the heart of the Rocky Mountains. It is found in abundance on the plains of the Columbia, and appears to extend to California. It is said by Lewis and Clarke to utter a cackling note when flying, and to feed on the leaves and buds of the pulpy-leafed thorn. It is invariably found on the plains. This bird is just the size of the European cock of the woods. The plumage is blackish, minutely dotted, mottled, and sprinkled with white. The under parts are grayish, mottled with black.

The *Sharp-tailed Grouse* (*T. phasianellus*) was first met with by Gov. Lewis on the upper waters of the Missouri. It is said to be the inhabitant of the great plains of the Columbia. The expedition under Major Long brought a specimen, now in the museum at Philadelphia.



The Sharp-tailed Grouse.

This bird is never seen in any of the Atlantic States, though numerous in high northern latitudes. It inhabits the uncultivated lands near the southern parts of Hudson's Bay. It is sometimes found near Lake Superior in the spring.

The sharp-tailed grouse is very shy and solitary in summer, but lives in flocks during the winter. Their favorite places of resort are the juniper plains, where the buds of juniper bushes constitute their favorite food. They frequent the woods as well as the plains; sometimes feeding on berries, and sometimes on the tops of evergreen, poplar, and birch trees. They breed on the ground, near low bushes; the nest is composed of grass, and lined with feathers Their flesh is excellent eating. One of these birds will sometimes weigh upwards of two pounds. The general color of the plumage is a mixture of white and rusty, on a glossy blackish ground; the feathers of the head and neck are tipped with white.

The *Spotted Grouse* (*T. Canadensis*) visits Canada in the winter, and is known there by the name of wood partridge. Its favorite resort is in pine wood and cedar swamps, where it feeds on buds, oily seeds, and evergreen foliage. It builds its nest on the ground, and is unsuspicious, and easily taken. The ***Willow Grouse*** is found on the coast of Hudson's Bay. Its habits are similar to those of the preceding bird. It subsists on berries, and on the tops and seeds of the dwarf willow, from which it takes its name of willow partridge. The ***White Grouse***, or Ptarmigan of Europe, is found in the northern parts of the Hudson's Bay country.

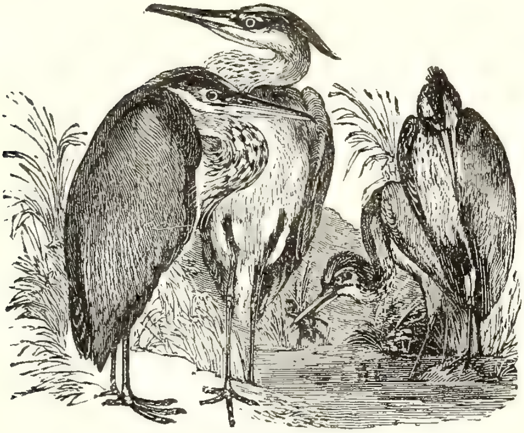
Whooping Crane.

The ***Whooping Crane*** (***Grus Americana***) is the tallest and most stately species of all the feathered tribes of the United States; the watchful inhabitant of extensive salt marshes, desolate swamps, and open morasses, in the neighborhood of the sea. Its migrations are regular, and of the most extensive kind, reaching from the shores and inundated tracts of South America to the arctic circle. In these periodical journeys, they pass at such a prodigious height in the air as to be rarely observed. During winter, they are frequently seen in the low ground and rice plantations of the Southern States, in search of grain and insects. They are extremely shy and vigilant, so that it is with the greatest difficulty they can be shot. They sometimes rise in the air to a great height, and fly round in large circles, as if reconnoitring the country to a vast extent, for a fresh quarter to feed in. Their flesh is said to be well tasted. They swallow rats, mice, moles, &c. with great avidity. They build their nests on the ground, amidst solitary swamps, and raise them more than a foot in height. The *Sand Hill Crane* is said by Mr. Flint to be a fine, stately bird, as majestic in the water as a swan, and considerably taller, of a sleek, compact, and oily plumage, of a fine grayish-white color. They are to be seen in countless numbers on the Missouri and Mississippi rivers, seeming, at a distance, like immense droves of sheep. They migrate in company with the pelicans, and fly at such a height in the air as scarcely to be seen, uttering at the same time a deep cry.

The *Louisiana Heron* (*Ardea Ludoviciana*) is a rare and delicately formed species, occasionally found on the swampy rivers of South Carolina, but more frequently along the borders of the Mississippi. The *Yellow Crowned Heron* is one of the nocturnal species of the heron tribe, whose manners, place and mode of building its nest, resemble greatly those of the night heron

It inhabits the lower parts of South Carolina, Georgia, and Louisiana, in the summer season; reposing during the day among low swampy woods, and feeding only in the night. It builds in societies, making its nest with sticks among the branches of low trees, and lays four blue eggs.

The *Night Heron*, or *Qua Bird* (*A. nycticorax*), breeds usually in the most solitary and deeply shaded parts of a cedar swamp. The males regularly direct their course every evening at twilight towards the marshes, uttering, in a hoarse and hollow tone, the sound *Qua*. At this hour, also, all the nurseries in the swamps are emptied of their inhabitants, who disperse in quest of food. On entering one of these swamps, the noise of the old and young would almost lead one to suppose that two or three hundred Indians were choking each other. The instant an intruder is discovered, the whole rise in the air in silence, and remove to the tops of the trees, in another part of the woods; while parties of from eight to ten make occasional circuits over the spot, to see what is going on.



Herons.

The *Great Egret Heron* (*A. egretta*) is often seen in summer in our low marshes and inundated meadows; yet on account of its extreme vigilance it is very difficult to be procured. It is found from Guiana, and probably beyond the line, to New York. Its favorite haunts are vast inundated swamps, rice fields, the low marshy shores of rivers, and such like places; where, from its size and color, it is very conspicuous even at a distance. Their food consists of frogs, lizards, small fish, insects, and small water snakes, &c. They will also devour mice and moles. The plumage of this elegant bird is of a snowy whiteness; the bill of a rich orange yellow; and the legs black.

The *Great Heron* (*A. herodias*) is a constant inhabitant of the Atlantic coast, from New York to Florida. They breed in the Carolinas and New Jersey, in the gloomy solitudes of cedar swamps, where, if unmolested, they will annually breed for many years. Their nests are constructed on the tallest trees. These are large, formed of sticks; each occupies the top of a single tree. The principal food of this bird is fish, for which he watches with unwearied patience, and seizes them with surprising dexterity.

Flamingo.

The heron has great powers of wing, flying sometimes very high, and to a great distance; his neck doubled, his head drawn in, and his long legs stretched out in a line behind him, appearing like a tail, and probably serving the same rudder-like office. The *Blue Heron* (*A. cœrulea*) is frequently found on the muddy shores of the Mississippi, where it wades about in search of tadpoles, lizards, frogs, &c. It is often found in company with the *Little White Heron*.

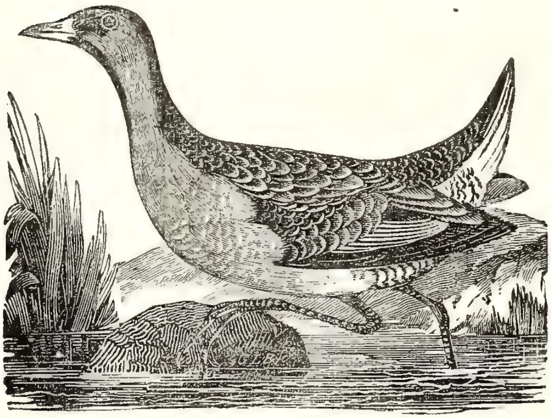
The *Flamingo* (*Phœnicopterus ruber*). This extraordinary bird is now chiefly found in America, and is very numerous in Florida and the Southern States. It was once known on all the coasts of Europe, but its beauty, size, and peculiar delicacy of flesh, have been such temptations to destroy or take it, that it has long since deserted the shores frequented by man, and taken refuge in countries that are as yet but thinly peopled. When the Europeans first came to America, they found the flamingo quite gentle, and no way distrustful of mankind. But at present it is very different, and the flamingo is not only one of the scarcest, but one of the shyest birds in the world, and the most difficult of approach. They chiefly keep near the most deserted and inhospitable shores, near salt-water lakes and swampy islands.

Their time of breeding is according to the climate in which they reside ; in North America, they breed in summer ; on the other side of the line, they take the most favorable season of the year. They build their nests in extensive marshes, and where they are in no danger of a surprise. The nest is not less curious than the animal that builds it ; it is raised from the surface of the pool about a foot and a half, formed of mud, scraped up together and hardened by the sun or the heat of the bird's body ; it resembles a truncated cone, or one of the pots which we see placed on chimneys ; on the top, it is hollowed out to the shape of the bird, and in that cavity the female lays her eggs, without any lining but the well-cemented mud that forms the sides of the building. She always lays two eggs, and no more ; and, as her legs are immoderately long, she straddles on the nest, while her legs hang down, one on each side, into the water. It is a long while before the young ones are able to fly, but they run with amazing swiftness. They are sometimes caught, and, very different from the old ones, suffer themselves to be carried home, and are tamed very easily.

Roseate Spoon Bill.

The *Roseate Spoon Bill* (*Platalea ajaja*), which is of a beautiful red, inhabits the sea-shores of America, from Brazil to Georgia, and is sometimes found in Mississippi in the summer. It is also to be met with in the West India Islands, but confines itself to the shores and mouths of rivers. It wades about in search of shell-fish, marine insects, small crabs, and fish, in pursuit of which it occasionally swims and dives.

The *Wood Ibis* (*Tantalus Loculator*) is found in the southern parts of the United States. Its favorite haunts are watery savannas and inland swamps, where it feeds on fish and reptiles. The French inhabitants of Louisiana esteem it good eating. The whole body, neck, and lower parts of this bird are white ; the bill is nearly nine inches long. The *Scarlet Ibis* (*Ibis rubra*) is little known except that it frequents the borders of the sea, and the shores of the neighboring rivers, feeding on small fry, shell-fish, sea worms and crabs. The *White Ibis* (*I. Alba*) is numerous at the south, and resembles the preceding in every respect except in color.



The Common Rail

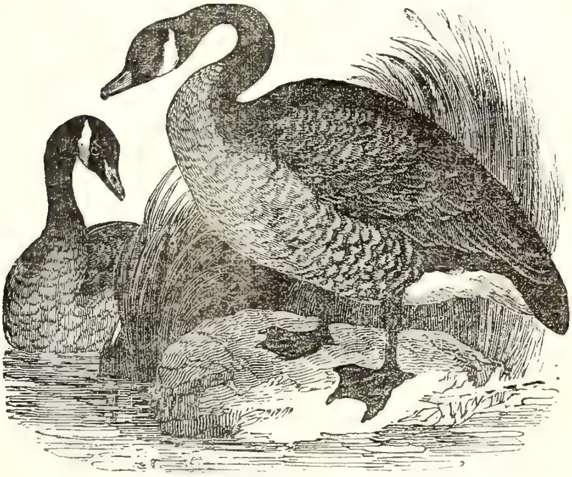
The *Rail*. There are several kinds of Rail inhabiting the United States ; the Virginia rail (*Rallus Virginianus*), which is not a very common species, but is found in the fresh-water marshes of the east, and spreads over the interior as far west as Ohio; the clapper rail (*R. crepitans*), which is also called mud-hen, meadow clapper, big rail, &c., and has its principal residence in salt marshes ; and the common rail (*R. Carolinus*), which is abundant along the reedy shores of the Delaware. The engraving represents one of these birds. When the reeds have attained their full growth, the rail resorts to them in great numbers to feed on the seeds of this plant, of which they are remarkably fond ; and if a stone be thrown among the reeds at this time, there is a general outcry, and a reiterated *kuk*, *kuk*, *kuk*. The discharge of a gun produces the same effect. Their flight through the reeds is exceedingly low, and they swim and dive with great rapidity. They are feeble and delicate in every thing but their legs, their bodies being so remarkably thin, as to be less than an inch and a quarter through transversely, by which means they are enabled to pass between the reeds like rats. No one can detect the first moment of their arrival; yet all at once, the reedy shores, and grassy marshes of the large rivers swarm with them; thousands being sometimes found within the space of a few acres. Yet on the first smart frost that occurs, the whole suddenly disappear, as if they had never been. It is probable that they perform their migrations in the night.

Purple Gallinule.

The *purple Gallinule* (*Gallinula Martinica*). This beautiful bird is a native of the southern part of the continent of America, though it occasionally visits the United States. It is sometimes found in the rice fields and marshes of Georgia, where it is supposed to breed.

The common wild goose (*Anser Canadensis*) is well known over all parts of North America, and its periodical migrations are the sure signs of returning spring, or approaching winter. Wilson furnishes us with the following beautiful account of this bird:

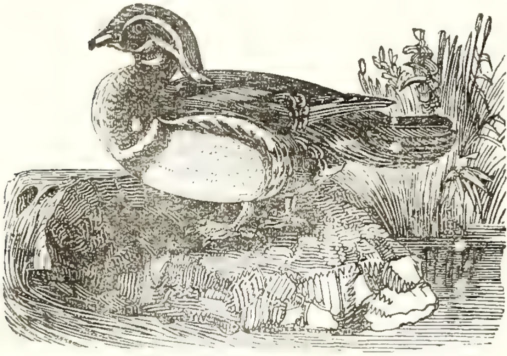
"I have never visited any quarter of the country where the inhabitants are not familiarly acquainted with the passing and re-passing of the wild goose. The general opinion *here* is, that they are on their way to the lakes to breed; but the inhabitants on the confines of the great lakes are equally ignorant with ourselves of the particular breeding places of these birds. *There* their journey north is but commencing, and how far it extends, it is impossible for us at present to ascertain. They were seen by Hearne in large flocks within the arctic circle, and were then pursuing their way still farther north. They have been also seen on the dreary coast of Spitzbergen, feeding on the water's edge. It is highly probable that they extend their migrations under the very pole itself, amid the silent desolation of unknown countries, shut out from the eye of man by everlasting barriers of ice. That such places abound with suitable food, we cannot for a moment doubt.


The Wild Goose.

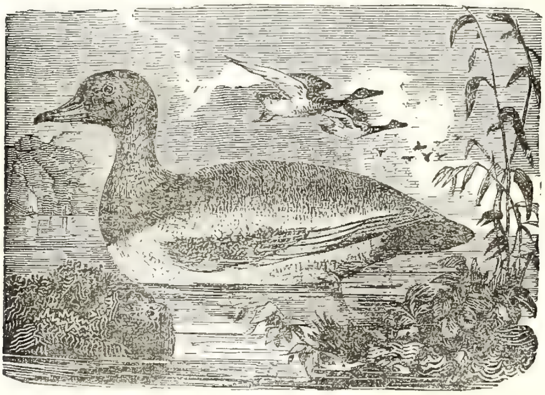
"The flight of the wild goose is heavy and laborious, generally in a straight line, or in two lines approximating to a point. In both cases, the van is led by an old gander, who every now and then pipes his well known *honk*, as if to ask how they come on; and the *honk* of 'all 's well' is generally returned by some of the party. When bewildered in foggy weather, they appear sometimes to be in great distress, flying about in an irregular manner, making a great clamor. On these occasions, should they alight on the ground, as they sometimes do, they meet with speedy death and destruction. The autumnal flight lasts from the middle of August, to the middle of November; the vernal flight from the middle of April, to the middle of May.

"Wounded geese have frequently been domesticated and readily pair with tame geese. On the approach of spring, however, they discover symptoms of uneasiness, frequently looking up in the air, and attempting to go off. Some, whose wings have been closely cut, have travelled on foot in a northerly direction, and have been found at the distance of several miles from home. They hail every flock that passes over head, and the salute is sure to be returned by the voyagers, who are only prevented from alighting by the presence and habitations of man. The gunners sometimes take one or two of these domesticated geese with them to those places over which the wild ones are accustomed to fly; concealing themselves, they wait for a flight, which is no sooner observed by the decoy geese, than they begin calling aloud, until the flock approaches so near, that the gunners are enabled to make great havoc among them with their musket shot."

The Swan.



Wood or Summer Duck.



Canvas-back Duck.

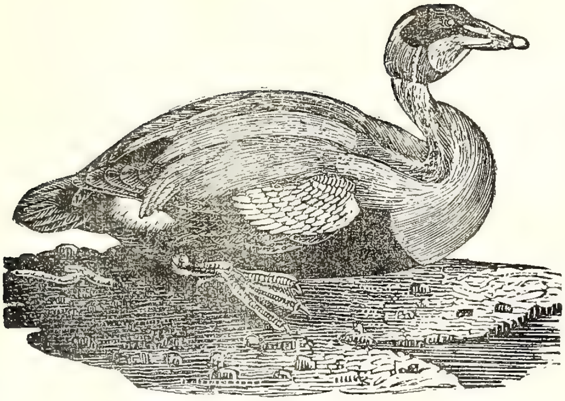
The *Swan* (*Cygnus ferus*) is found in various parts of North America. Here this noble bird is seen floating near the shores, in flocks of some 2 or 300, white as the driven snow, and, from time to time, emitting fine, sonorous, and occasionally melodious songs, so loud that they may be heard on a still evening, two or three miles. There are two kinds so called from their respective notes; the one the trumpeter, and the other the hooper; the former is the largest. These birds are sagacious and wary, and depend more on sight, than on the sense of smell.

The *Wood* or *Summer Duck* (*Anas sponsa*) is the most beautiful bird of its kind in the world. It was named *sponsa*, or the *bride*, by Linnæus, from the crest which adorns its head, resembling the wedding head-dress of the Swedish peasants. Its plumage is most brilliantly variegated. It passes the summer in the woods, but its favorite spots are the borders of ponds and lakes. It nestles in hollow trees, and when taken may be easily tamed.

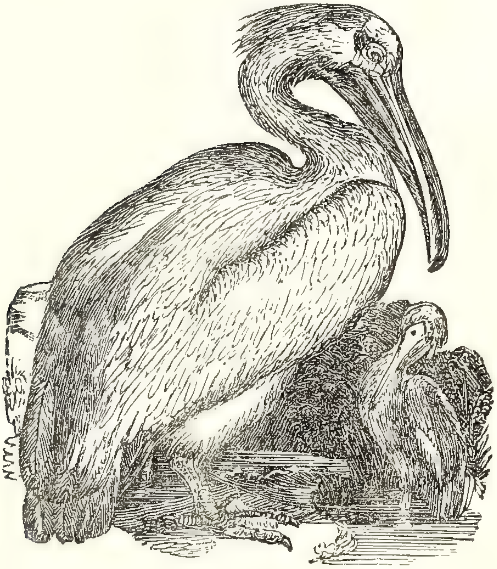
The *Canvas-back Duck* (*Fuligula valisneria*) is peculiar to America, and is more celebrated than any other, for the excellent flavor of its flesh. They breed, as is supposed, on the borders of the northern lakes, or of Hudson's Bay; they frequent the waters of the Chesapeake, and are abundant on the Mississippi. It is well ascertained that they feed on the bulbous root of a grass, which grows on the flats in the fresh water of these rivers, and has very much the color and flavor of garden celery; it is to this food that has been attributed, and we believe correctly, the peculiarly delicious taste of their flesh. They feed in from 6 to 10 feet water; they are expert divers, and with great strength and agility, seize the grass near the bottom, bringing it up root and branch to the surface, where they bite off the root, leaving the long herbaceous part to float on the water.

The *Eider Duck* (*F. mollissima*) is found on the coast in the northern parts of North America, as well as in Europe. From this bird is procured the soft down called eider down, which is so well known as an article of commerce. In the breeding season, the birds pluck it from their breasts to line their nests, and make a soft bed for the young ones; this the natives remove with the eggs, and the female plucks new down and lays afresh. If she has not enough left, the male covers the eggs with his down. One female bird generally gives half a pound of down.

The *Pelican* (*Pelecanus onocrotalus*) is very abundant on the shores of the Southern States. They are all torpid and inactive to the last degree, so that nothing can exceed their indolence but their gluttony. It is only from the stimulations of hunger that they are ex-



Eider Duck.



Pelican.

cited to labor; for otherwise they would continue always in fixed repose. When they have raised themselves about thirty or forty feet above the surface of the water, they turn their head, with one eye downwards, and continue to fly in that posture. As soon as they perceive a fish sufficiently near the surface, they dart down upon it with the swiftness of an arrow, seize it with unerring certainty, and store it up in their pouch. They then rise again, though not without great labor, and continue hovering and fishing, with their head on one side, as before.

Sometimes they are said to assemble in large numbers, to act in concert, and manœuvre with great skill, for the purpose of securing an abundant prey. This they accomplish by forming a circular line, gradually narrowing the included space, till the fishes are driven within a small compass. They then all plunge into the water at once, on a given signal, fill their pouches with the spoil, and then return to the land, to enjoy themselves at leisure.

Their life is spent between sleeping and eating. The female makes no preparation for her nest, nor seems to choose any place in preference to lay in, but drops her eggs on the bare ground, to the number of five or six, and there continues to hatch them. Her little progeny, however, seem to call forth some maternal affections; for the young have been taken and tied by the leg to a post, and the parent bird has been observed for several days to come and feed them, remaining with them the greatest part of the day, and spending the night on the branch of a tree that hung over them. By these means they became so familiar that they suffered themselves to be handled; and they very readily accepted whatever fish was given to them. These they always put first into their pouch, and then swallowed them at leisure.

It was once believed that the pelican fed her young with her own blood; a fable for which we are indebted to some of the early fathers of the church, and which has been perpetuated by poets and heralds. The fact is, that the parent bird feeds the young by pressing its full pouch against its breast, and thus expelling a portion of the contents. The appearance of the bird when in this attitude, with the bloody spot on the end of its bill closely pressed against the delicate plumage of its breast, may, it has been well observed, readily account for the prevalence of such an idea in the minds of superficial observers.

The *Black-bellied Darter*, or *Snake Bird* (*Plotus melanogaster*), is common from the Carolinas to Guiana. The head, neck, and breast are light brown; the belly and tail, deep black. It sits on the shrubs that hang over the water, and often terrifies the passengers by darting out its long and slender neck, which bears a strong resemblance to that of a serpent.

The *Alligator* (*Crocodilus lucius*) is common in the larger rivers of the south and southwest, and abounds particularly in Louisiana. Mr. Audubon furnishes us with the following account, which refers to that State:

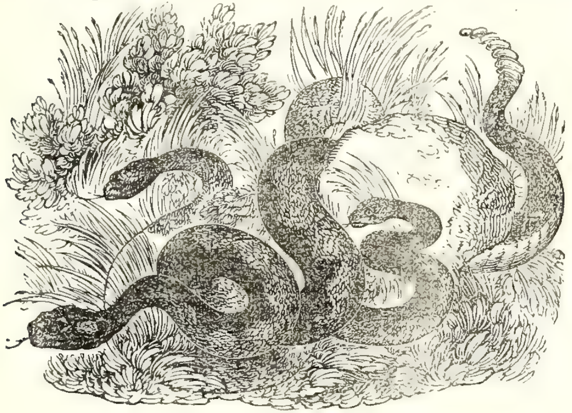
"All our lagoons, bayous, creeks, ponds, lakes, and rivers, are well stocked with them; they are found wherever there is a sufficient quantity of water to hide them, or to furnish them with food; and they continue thus, in great numbers, as high as the mouth of the Arkansas River, extending east to North Carolina, and as far west as I have penetrated. On the Red River, before it was navigated by steam vessels, they were so extremely abundant, that, to see hundreds at a sight along the shores, or on the immense rafts of floating or stranded timber, was quite a common occurrence; the smaller on the backs of the larger, groaning and uttering their bellowing noise, like thousands of irritated bulls about to meet in fight, but all so careless of man, that, unless shot at, or positively disturbed, they remained motionless, suffering boats or canoes to pass within a few yards of them, without noticing them in the least. The shores are yet trampled by them in such a manner, that their large tracks are seen as plentiful as those of sheep in a fold.

Alligator.

"When alligators are fishing, the flapping of their tails about the water may be heard at half a mile; but, to describe this in a more graphic way, suffer me to take you along with me in one of my hunting excursions, accompanied by friends and Negroes. In the immediate neighborhood of Bayou-Sarah, on the Mississippi, are extensive shallow lakes and morasses; they are yearly overflowed by the dreadful floods of that river, and supplied with myriads of fishes of many kinds, amongst which trouts are most abundant, white perch, cat-fish, and alligator gars, or devil-fish. Thither, in the early part of autumn, when the heat of a southern sun has exhaled much of the water, the squatter, the planter, the hunter, all go in search of sport. The lakes are then about two feet deep, having a fine sandy bottom; frequently much grass grows in them, bearing crops of seed, for which multitudes of water-fowl resort to those places. The edges of these lakes are deep swamps, muddy for some distance, overgrown with large heavy timber, principally cypress, hung by Spanish beard, and tangled with different vines, creeping plants, and cane, so as to render them almost dark during the day, and very difficult for the hunter's progress. Here and there in the lakes are small islands, with clusters of the same trees, on which flocks of snake birds, wood ducks, and different species of herons, build their nests. Fishing lines, guns, and rifles, some salt, and some water, are all the hunters take. Two Negroes precede them, the woods are crossed, — the scampering deer is seen, — the raccoon and the opossum cross before you, — the black, the gray, and the fox squirrel, are heard barking. As you proceed farther on, the *hunk hunk* of the lesser ibis is heard from different parts, as they rise from the puddles that supply them with crayfish. At last the opening of the lake is seen; it has now become necessary to drag one's self along through the deep mud, making the best of the way, with the head bent, through the small brushy growth, caring about nought but the lock of your gun. The long narrow Indian canoe, kept to hunt those lakes, and taken into them during the fresh, is soon launched, and the party seated in the bottom, is paddled or poled in search of water-game. There, at a sight, hundreds of alligators are seen dispersed over all the lake, their head, and all the upper part of the body, floating like a log, and, in many instances so resembling one, that it requires to be accustomed to see them to know the distinction. Millions of the large wood ibis are seen wading through the water, mudding it up, and striking deadly blows with their bills on the fish within. Here are a herd of blue herons, the sand-hill crane rises with hoarse note, the snake birds are perched here and there on the dead timber of the trees; the cormorants are fishing; buzzards and carrion crows exhibit a mourning train, patiently waiting for the water to dry and leave food for them, and far in the horizon the eagle overtakes a devoted wood-duck, singled from the clouded flocks that have been bred there. It is then that you see and hear the alligator at his work. Each lake has a spot deeper than the rest, rendered so by these animals who work at it; it is always situated at the lower end of the lake, near the connecting bayous. Thus, as drainers pass through all those lakes, and discharge sometimes many miles below where the water had made its entrance above, they insure to themselves water as long as any remains. This is called by the hunters the Alligator's Hole. You see them there lying close together.

"The drivers of cattle from the Opelousas, and those of mules from Mexico, on reaching a lagoon or creek, send several of their party into the water, armed merely each with a club, for the purpose of driving away the alligators from the cattle; and you may then see men, mules, and those monsters all swimming together, the men striking the alligators, that would otherwise attack the cattle, of which they are very fond, and the latter hurrying towards the opposite shores, to escape their powerful enemies. They will swim swiftly after a dog, or a deer, or a horse, before attempting the destruction of a man, of whom I have always remarked they were afraid, if the man feared not them."

The *Rattlesnake* is found in all parts of our country, but in the Southern States it grows to a larger size, and is more active and venomous. There appear to be several varieties, some of which are as large as a man's leg, and six or seven feet in length. In its native haunts it moves along most majestically; neither seeking to offend the larger animals nor fearing their insults. If unprovoked it never meddles with any thing but its natural prey; but when accidentally trodden upon, or pursued to be destroyed, it then makes a dreadful and desperate defence. It erects itself upon its tail, throws back its head, and inflicts the wound in a moment; it then parts and inflicts a second wound; after which, we are told by some, that it remains torpid and inactive, without even attempting to escape.



Rattlesnakes.

The very instant the wound is inflicted, though small in itself, it appears more painful than the sting of a bee. This pain, which is so suddenly felt, far from abating, grows every moment more excruciating and dangerous; the limb swells, the venom reaches the head, which is soon of a monstrous size; the eyes are red and fiery; the heart beats quick, with frequent interruptions; the pain becomes insupportable, and some expire under it in five or six hours; but others, who are of stronger constitutions, survive the agony for a few hours longer, only to sink under a general mortification which ensues and corrupts the whole body.

The usual motion of the Rattlesnake is with its head to the ground. When, however, it is alarmed, it coils its body into a circle, with its head erect, and its eyes flaming in a terrific manner. But it cannot pursue rapidly, and has no power of springing on its enemy.

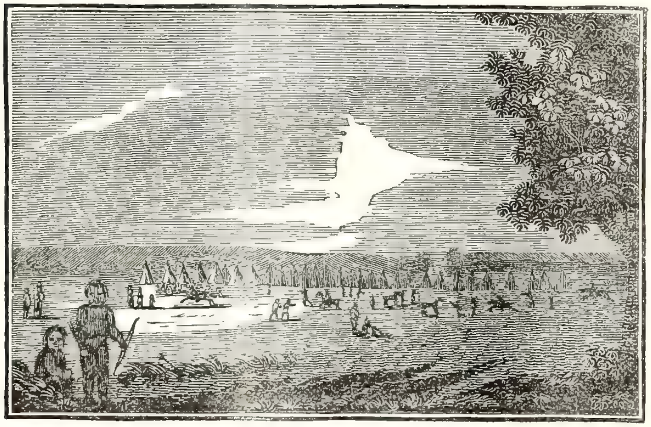
Of the *Moccasin Snake* there are three or four varieties, bearing a general resemblance in size and color to the rattlesnake. Some of them inhabit the uplands, and others live around the water and in marshy places. They are indolent animals, neither flying nor pursuing man. In point of venom, this snake is classed with the rattlesnake. The Negroes of the rice plantations are obliged to take precautions against it, but it is said never to bite at night, and the sportsmen, who go in pursuit of ducks and other birds, walk through the marshes at that time without fear.

The *Copper Head Snake* of the Southern States, and the *Elaps fulvius*, are almost the only venomous snakes of North America, beside those above-named.

12. *Indians.* The natives of America consist of two distinct races. To the first belong the Esquimaux, who inhabit Greenland, Labrador, the shores of Hudson's Bay, and the Arctic Ocean. Although known under different names, and spread over a wide extent of country, they all speak the same language, and, like the Malays of the eastern continent, they live only along the sea coast. They are of a smaller stature than the other American aborigines, and are more lively and loquacious; their hair is straight and black, but their skin is white. They are ignorant, superstitious, and extremely filthy; living in a region where the soil is frozen during nine months in a year, they cannot rely upon the vegetabl

Indian Tent

productions of the earth for subsistence, and as they have no domestic animals but dogs, hunting and fishing are almost their sole resource.



Indian Encampment.

It is in the management of their canoes, and the stratagems by which they take the seal, the walrus, or the whale, that they display their highest exertions of intellect. Their dress is of skin; and their houses are tents of skins, or huts of snow and ice.

The second race is dispersed over the rest of the American continent, and is composed of numerous tribes, speaking different languages, yet evidently sprung from the same original stock. They are larger, more warlike, and more taciturn than the Esquimaux, from whom they also differ in the color of their skin, which is of a coppery tinge. The greater part of these nations were found by the Europeans, and still continue, in a state of barbarism. Armed with bows and arrows, war clubs, lances, and tomahawks; even in the preparation of these simple weapons they made no use of metal or of metallic instruments; without domestic animals or settled habitations, rarely cultivating the ground, and then only in a rude manner, they wandered from place to place, subsisting by the chase or by fishing, and living in temporary tents or lodges of mats or skins, or in huts composed of the branches of trees, owning no property and following no regular occupation. The men, who despised labor, passed the time not consumed in hunting or in war, in stupid inaction, while the labor was all done by the women. They lived collected in small bands or tribes, several of whom were often united under a common chief or leader, rather for the purpose of defence or making war against their neighbors, than for the objects of civil government. Many of these tribes have become extinct since the whites have occupied the great forest, through which they hunted; others have in some degree modified their primitive habits, and even adopted the arts of civilized life, while others, occupying the greater part of the immense regions west of the Mississippi, and those north of the Canadas, retain the customs of their ancestors. An examination of their languages has shown them to consist of several great families or nations, each comprising numerous kindred tribes.

(1.) The Algonquin or Chippeway nation is spread over all the northern part of the continent east of the Rocky Mountains. Among the various tribes of this family are the Knistenaux or Crees, in the region of Slave Lake, the Saskashawan, and Hudson's Bay; the Micmacs, in the British Provinces; the Chippeways, around Lake Superior; the Ottawas, in Michigan Territory, to which tribe the celebrated Pontiac belonged; the Potawatomies, of the same region; the Sacs and Foxes, or Saukis and Ottogamis, who have lately been obliged to confine themselves to the west of the Mississippi; and the Shawnees, Kickapoos, Menomonies, Miamis, and Delawares, of the same region. The Mohegans and Abenaquis, who formerly inhabited the Middle and Eastern States, belonged also to this family.

(2.) The Wyandot or Huron family included the confederacy called the Iroquois or Six Nations, comprising the Mohawks, Senecas, Onondagos, Oneidas, Cayugas, and Tuscaroras, and the Wyandots. The Six Nations resided on the St. Lawrence, and some of them still remain in New York and Canada. The last remnants of the Mohegans have been incorporated with them.

(3.) The Southern or Floridian family comprised the Cherokees, Creeks, Chickasaws, Choctaws, Seminoles, and Natchez. The last mentioned, now extinct, resided on the Mississippi, and had attained a much higher degree of civilization than their neighbors. The others, with the exception of some Seminoles, have been removed from their former habitations in Mississippi, Alabama, Georgia, and Florida, to the Indian Territory.

(4.) The Sioux or Dahcotahs are a numerous family, inhabiting the region to the west of the Mississippi, on the Missouri, Platte, and Arkansas. One tribe of this family, the Winnebagoes, formerly resided near Lake Michigan, but they have lately been obliged to retire to the west of the Mississippi. The other tribes are the Dahcotahs, living about the Upper Mississippi ; the Hohays or Assiniboins, further north ; the Omawhaws, near the Platte ; the Mandans on the Missouri, further north ; the Kansas, on the river of the same name ; the Osages, further south ; the Ioways, the Otoes, the Missouris, the Quapaws, &c. Several of these tribes are more civilized and peaceable than the more eastern nations.

(5.) The Pawnee family are a fierce and warlike people, consisting of several tribes, who have learned how to manage the horse which has become numerous in those regions. The principal tribes are the Pawnees, the Arrapahoes, and the Cumanches, who roam through the regions on the Platte, the Arkansas, and Norte.

(6.) Of the Columbian family, on the west of the Rocky Mountains, little is known. There are many tribes, known under the names of Flatheads, Shoshonees, Esheloots, &c.

(7.) The great Mexican family comprises the Aztecs, Toltecs, and Tarascos of Mechoacan ; these nations had established civil governments, practised the useful arts, and built cities, at the time of the conquest of the country by the Spaniards. Many remnants of their works survive, and are elsewhere described. Their descendants are incorporated, to a considerable degree, with the Spanish population.

13. *Political Divisions.* Although a large portion of North America is still occupied by the aboriginal tribes, and extensive tracts are not fitted for the residence of a civilized society, yet the whole continent has been at least nominally divided by lines of demarcation among several European powers and the former European colonies. Russia and Great Britain are now the only foreign States which lay claim to any part of the mainland ; but Denmark claims Iceland and Greenland, and France has a sort of usufruct of the little islands of St. Pierre and Miquelon in the Gulf of St. Lawrence.

I. DANISH AMERICA comprises Iceland, inhabited by 50,000 persons of Scandinavian descent ; Greenland, in which there are several missionary stations on the southwest coast, the rest of the country being occupied by wandering bands of Esquimaux, or being without inhabitants.

II. RUSSIAN AMERICA consists of the northwestern peninsula, west of the 141st meridian, with a strip of seacoast reaching as far south as the southernmost point of Prince of Wales Island. The only Russian establishments, however, within this vast tract are a few factories and forts of the Russian American Fur Company. The capital, if it can be so styled, is New Archangel on Sitka Island, the King George the Third of Vancouver. The company has also a fortified factory at Bodega, on the coast of California.

III. BRITISH AMERICA comprises all that immense region lying between the Polar Seas and the United States, and stretching across the whole breadth of the continent in its widest part. On the west of the Rocky Mountains the conflicting claims of Great Britain and the United States extend over the basin of the Columbia River. The frozen and sterile regions north of the 50th parallel, with the exception of the Moravian missions of Labrador, and the posts of the Hudson's Bay Company, are actually occupied by the indigenous tribes, or are uninhabited and uninhabitable. South of that parallel lie the Provinces, rapidly filling up with an English population, and capable of accommodating and supporting 20,000,000 of inhabitants. Great Britain also holds the Bermudas, and the colony of Honduras on the peninsula of Yucatan.

IV. The UNITED STATES OF AMERICA, lying in the central part of the continent, and occupying its whole breadth from the Atlantic to the Pacific Ocean, embrace a region unsurpassed in the world for its productive powers and useful qualities.

V. The REPUBLIC OF TEXAS has lately made good its claim to independence, but its precise limits are not yet settled.

VI. The REPUBLIC OF MEXICO, until 1835 the United States of Mexico, occupies the peninsular tract west of Texas and the United States, and extending from 15° to 42° N. lat. There are, however, few Spanish settlements north of the 30th parallel, the missions and posts on the coast of California, and the towns and villages on the banks of the Del Norte, being almost the only establishments in that region. The country west of the Norte is more remarkable for its mineral wealth than for its agricultural resources, and suffers much from droughts. Further south the soil becomes more productive.

VII. The REPUBLIC OF GUATEMALA, styled the UNITED STATES OF CENTRAL AMERICA, occupies the long narrow tract between the Caribbean Sea and the Pacific Ocean, a large portion of which is yet a wilderness.

The following table shows the area and population of each of these divisions.

State or Region.	*Population.*	*Area.*	*Government.*
British Provinces,	1,500,000	500,000	Colonial.
Russian Territory,	50,000	500,000	Company.
Danish Possessions,	100,000	450,000	Colonial.
Hudson's Bay Comp'y,	50,000	2,000,000	Company.
United States,	17,000,000	2,300,000	Republic.
Texas,	100,000	350,000	Republic.
Mexico,	6,000,000	1,300,000	"
Central America or Guatemala,	2,000,000	186,000	"

CHAPTER III. UNITED STATES.

1. *Boundaries and Extent.* The United States are bounded N. by Russian and British America ; E. by the British Province of New Brunswick and the Atlantic Ocean ; S. by the Gulf of Mexico, and by Texas and Mexico, and W. by the Pacific Ocean. They extend from 25° to 54° N. Lat., and from 67° to 125° W. Lon., or through 29 degrees of latitude, and through 58 degrees of longitude, comprising an area of upwards of 2,200,000 square miles, with a frontier line of 9,500 miles, 3,650 of which are sea-coast.*

2. *Face of the Country.* This vast country, comprising one twentieth of the habitable globe, is divided by two ranges of mountains, into three great natural sections, the Atlantic slope, the Mississippi valley, and the Pacific slope.

(1.) The *Alleghany* chain is more remarkable for its length than height. Perhaps there is no tract of country in the world that preserves the mountain character over so great a space with so little elevation. The mean height of the Alleghanies is only from 2,000 to 3,000 feet, about one half of which consists of the elevation of the mountains above their base, and the other of the elevation of the adjoining country above the sea. To this height the country rises, by an almost imperceptible acclivity, from the ocean, at the distance of 200 or 300 miles on the one side, and from the channel of the Mississippi, at an equal distance, on the other. A gradual elevation of 1,000 or 1,200 feet upon a horizontal surface of 200 or 300 miles, would give the surface of the country, on the eastern side, an average rise of from 3 to 4 feet in the mile, and from 2 to 3 feet on the western side. This small degree of inclination accounts for the great extent of inland navigation which the United States enjoy. By the course of the Mississippi, Ohio, and Alleghany rivers, vessels ascend over an inclined plane of 2,400 miles in extent, to an elevation of perhaps 1,200 or 1,400 feet, without the help of canals or locks.

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* On the subject of the boundaries, see Maine, Michigan, Oregon, and Wisconsin.

(2.) The second great mountainous range which traverses the United States, is the ***Rocky Mountains.*** This ridge is more elevated than the former, but is also more distant from the Pacific Ocean on the one side, and the Mississippi on the other. From the Mississippi to the Pacific, in latitude 40°, is about 1,500 miles; and the Rocky Mountains, which crown this gradually swelling surface, rise, with the exception of some insulated peaks, to a height of about 9,000 feet. This elevation is about three times as great as that of the Alleghanies; and it is remarkable that the Mississippi, the common reservoir of the streams descending from both, is about three times further from the higher chain than from the lower, so that the declivity on both sides of the immense basin included between these mountains, is nearly the same; and the streams flowing from the Rocky Mountains are as susceptible of navigation as those from the Alleghanies.

The Mississippi valley also presents a southern declivity, by which it gradually sinks from the high table-land of the centre of the continent to the level of the ocean on the Gulf of Mexico. From this table-land, which is estimated to have an elevation of not more than 1,500 feet above the sea, descend the great rivers of North America, — Mackenzie's to the north, the St. Lawrence to the east, and the Mississippi to the south.

(3.) To the west of the Rocky Mountains lies the Pacific slope, the declivity of which is greater and more rapid than those of the others. This region, as yet little known, is visited only by missionaries, hunters, and trading ships.

3. *Soil.* With regard to soil, the territory of the United States to the east of the Rocky Mountains may be classed under five grand divisions:

(1.) That of the New England States, east of the Hudson, where the Alleghanies spread out into a broken, hilly country. The soil is here, in general, rocky, has but little depth, is barren in many places, and better adapted for pasture than tillage.

(2.) The sandy soil of the seashore, commencing from Long Island, and extending along the coast of the Atlantic and the Gulf of Mexico to the mouth of the Mississippi, with a breadth varying from 30 to 100 miles. This tract, from the Potomac southward, approaches to a horizontal plain, very little raised above the sea, and traversed through its whole breadth by the tide water at the mouths of the great rivers. The surface, which consists of sea sand, is scarcely capable of cultivation, and produces nothing but pines, except on the banks of rivers, and in marshy spots where rice is raised.

(3.) The land from the upper margin of this sandy tract to the foot of the Alleghany mountains, from 10 to 200 miles in breadth, the soil of which is generally formed from the alluvion of the mountains, and the decomposition of the primitive rocks beneath the surface. This tract is fertile, and generally well adapted for tillage.

(4.) The valleys between the ridges of the Alleghanies, the soil of which is various, bu rather richer than that of the tract last mentioned.

(5.) The extensive region west of the Alleghanies, bottomed on limestone, well watered, inexhaustibly productive, and containing perhaps as large a proportion of first rate soil as any country in the world. The northern and western part of the Mississippi valley, stretching for hundreds of miles along the foot of the Rocky Mountains, and several hundred miles in width, is a barren desert of sand.

In a state of nature, the whole Atlantic slope was covered by a dense forest, which also spread over a great part of the basin of the St. Lawrence, to the 55th degree of N. Lat., and nearly the whole of the Mississippi valley on the east of the river, and stretched beyond the Mississippi for the distance of 50 or 100 miles. On this enormous forest, one of the largest on the globe, the efforts of man have made but partial inroads. This forest is bounded on its western limits by another region of much greater area, but of a very different character. This may be strictly called the grassy section of North America, which, from all that is correctly known, stretches from the forest region indefinitely westward, and from the Gulf of Mexico to the furthest Arctic limits of the continent. The grassy or prairie region, in general, is less hilly, mountainous, or rocky than the forest region ; but there are many exceptions to this remark : plains of great extent exist in the latter, and mountains of considerable elevation and mass in the former. The two regions are not divided by any determinate limit, but frequently run into each other, so as to blend their respective features.

4. *Valley.* The *Valley of the Mississippi* is drained by the Mississippi, Missouri, and their numerous tributary streams, and may be considered as bounded N. by the great lakes of British America ; E. by the Appalachian Mountains ; S. by the Gulf of Mexico ; and W. by the Rocky Mountains. The Mississippi Valley is a wide extent of level country, in which the various rivers enclosed between two chains of mountains, 3,000 miles apart, find a common centre, and discharge their waters into the sea by a single channel. This valley extends from the 29th to the 49th parallel of N. Lat., and exhibits every variation of temperature, from the climate of Canada to that of Louisiana.

5. *Rivers.* The principal rivers of the United States discharge themselves into the Atlantic Ocean, the Gulf of Mexico, the Mississippi, and the Pacific Ocean. The *Mississippi* rises in about 47° N. Lat. in a number of head streams, and flows in a southerly course into the Gulf of Mexico, in Lat. 29° 6′ N. Its length by its windings is above 3,000 miles. Its source is in a lofty table-land, although the country here has the appearance of a vast marshy valley. Seven hundred miles from its source it is precipitated over the Falls of St. Anthony, and forms a beautiful cataract, 17 feet in descent, embellished by wild and romantic scenery. Below this, it receives many large streams, and a little south of Lat. 39°, its waters are augmented by the immense stream of the Missouri, from the west, which is both longer and carries a greater bulk of water than the Mississippi, yet loses its name in the inferior stream. Farther onward, it receives the Ohio from the east, and nearer the sea it is further augmented by the addition of two great streams, the Arkansas and Red rivers.

Below the Falls of St. Anthony, its course has no considerable obstruction. Here the stream is half a mile in width. At its junction with the Missouri, it is a mile and a half wide. Above this, it is a clear, placid stream, with rich and fertile alluvial banks, and broad, clean sand-bars. Below the Missouri, it becomes narrower and deeper. It often tears away the islands and points, and, at the season of high waters, great masses of the banks with all the trees upon them are plunged into the stream. In many places, it deposits immense heaps of drift-wood upon the sand-bars, which become as dangerous to the navigator as shoals and rocks at sea. These obstructions are called snags, sawyers, planters, chutes, races, and chains.

From its source to the Falls of St. Anthony, it flows through wild-rice lakes, swamps, limestone bluffs, and craggy hills. The alluvial banks or bottoms are from 6 to 8 miles wide, and are skirted by bluffs. Below the Ohio, the alluvion widens to 40 or 50 miles, and grows still broader as it approaches the sea. From March to June, the river overflows its banks, and exhibits in some places the appearance of an immense swamp, stretching as far as the eye can reach ; in others, vast and magnificent forests rising from the waters of a lake. Where the river meets the sea, it divides into several channels, which intersect a wide, dreary swamp, destitute of trees, and overgrown with coarse reeds. The water is white and turbid, and colors the ocean for a great distance out of sight of the land.

Before the introduction of steamboats, the navigation of the river was performed by keel-boats, which were partly rowed along the eddies of the stream, and partly drawn by ropes along the shore. In this tedious process, more than three months were consumed in ascending from New Orleans to the falls of the Ohio. The passage is now made by steamboats in 10 days. The first steamboat seen upon these waters was in 1810. There are now 400. The number of flat boats or arks which yearly descend the river, amounts to 5,000.

The *Missouri*, in regard to its length, may be considered the main stream of the Mississippi, and, in connexion with that stream, it is the longest river in the world. From its source in the Rocky Mountains to the Gulf of Mexico, its extreme length is 4,420 miles. It is navigable from the Great Falls to the sea, 4,000 miles, and has been ascended by steamboats 2,200 miles from the Mississippi.

This river rises in three head streams, which unite at the base of the Rocky Mountains, and are named Jefferson, Gallatin, and Madison. The source of one of these head streams is so near to that of the Oregon, on the other side of the mountains, that a person may drink from the springs of each without traveling more than a mile. For some distance the river is a foaming mountain torrent, and then spreads into a broad and gentle stream, full of islands, and in some places bordered by shores of blackish and precipitous rocks, 1,000 feet in height. The Great Falls of the Missouri are within 60 miles of the most eastern ridge of the Rocky Mountains, and for the combination of beauty and grandeur, they are second only to Niagara. The river, which is here 1,000 feet wide, is pressed in between perpendicular cliffs and banks, and falls at first in an unbroken sheet 98 feet perpendicular, and afterwards in a succession of cataracts and foaming rapids for a distance of 17 miles. The whole descent is 360 feet.

The general direction of the Missouri is southeasterly till it unites with the Mississippi. Its current is very rapid and tortuous, and it embosoms a vast number of islands. Like the Mississippi, it is subject to annual floods, which begin in March and end in July ; the average rise is 25 feet. Vast quantities of sand are brought down by its waters.

The Missouri has a more rapid current than the Mississippi. From the Kansas to the Mississippi, it runs from 5 to 7 miles an hour. Below this, sometimes 10 miles. The Mississippi below the Missouri, flows at a medial rate of 4 miles an hour. The Mississippi, at its junction with the Missouri, is a mile and a half wide, while the Missouri, at the same point, has a width of but half a mile. The course of the Mississippi exhibits a perpetual succession of curves, in such a regular uniformity, that the boatmen and Indians were accustomed to calculate their progress by the number of bends they had passed.

The alluvial banks of the Missouri are narrower than those of the Mississippi, and are for the most part destitute of trees. The bluffs which skirt the alluvion are generally a limestone rock. The Missouri has several large tributaries. The *Yellow Stone* rises in the Rocky Mountains, and falls into the Missouri after a course estimated at 1,800 miles, nearly half of which it is navigable. The *Platte* joins the Missouri further downward, and is supposed to have a course of 2,000 miles. The *Kansas*, still farther down, is 1,200 miles in length ; all these tributaries are from the south and west.

6. *Bays, Gulfs, &c.* The *Gulf of Mexico* borders the southern part of the country, and receives the waters of all the central regions. The coast of the Atlantic is indented by numerous deep bays, the chief of which are *Chesapeake*, *Delaware*, and *Massachusetts Bays :* all these are navigable.

7. *Shores and Capes.* In the north, the Atlantic coast is rocky, high, and bold, and broken into numerous headlands. Towards the south, the land subsides into an unvarying level flat, which extends to a great distance into the country. The most prominent capes, are *Cape Cod* in Massachusetts, *Cape Hatteras* in North Carolina, *Cape Florida*, and *Cape Sable*, the southern extremity of the United States.

8. *Climate.* Every diversity of climate is found in this country, from the perpetual summer of Florida and Louisiana, to the dreary winter of the Canadian borders. The general characteristic of the climate is its sudden transitions, from extreme heat to extreme cold. In a general view, the country may be regarded as comprised within three distinct zones. 1. That of the cold climate, containing the New England States, the northern part of New York, Michigan, and the western districts. 2. The middle climate, comprising the Middle States, with Ohio, Kentucky, Tennessee, Indiana, Illinois, Iowa, and Missouri. 3. The hot climate, comprising the Southern States and Arkansas. Throughout the country the climate is much colder than on the eastern continent under the same parallels of latitude.

More rain falls in the United States in the course of a year than in Europe, yet the proportion of fair weather is greater here, and the air is drier; as the rain in America falls in much heavier showers, and the evaporation is more rapid than on the eastern continent. The spring of the United States is remarkably short. The peculiarities of climate in each State and division are elsewhere minutely described.

9. *Minerals.* The mineral products of the United States are rich and various. Iron, coal, lime, and salt, articles of primary importance, exist in great abundance. Lead is found in inexhaustible quantities in Virginia, New York, Missouri, Illinois, Wisconsin, and Iowa. Salt, which is obtained from the sea on the eastern side of the Alleghanies, is procured on the western side from salt springs, which are numerous and copious in their produce all over the Western States. The supply of coal is equally abundant; on the west of the mountains immense beds of bituminous coal stretch for hundreds of miles through the valley of the Mississippi; and on the east anthracite coal is found in various positions. Gold has recently been found in considerable quantities in some of the Southern States. Copper is found in Michigan and Missouri.

10. ***Political Divisions, Population, and Capital.*** The United States are divided politically into twenty-six States, three Territories, and the District of Columbia; all of which, with the exception of Louisiana, Missouri, and Arkansas, and Iowa Territory, lie on the east of the Mississippi. The capital is Washington in the District of Columbia.

States and Territories.

New England States.

	Area, sq. m.		Area, sq. m.
Maine,	35,000	Massachusetts,	7,800
New Hampshire,	9,500	Rhode Island,	1,225
Vermont,	10,000	Connecticut,	4,760

Middle States.

New York,	43,000	New Jersey,	7,275
Pennsylvania,	46,000	Delaware,	2,100

Southern States.

Maryland,	13,500	Georgia,	62,000
Virginia,	70,000	Alabama,	50,000
North Carolina,	50,000	Mississippi,	46,500
South Carolina,	33,000	Louisiana,	48,500

Western States.

Ohio,	45,000	Missouri,	68,000
Indiana,	36,000	Arkansas,	55,000
Michigan,	70,000	Kentucky,	40,500
Illinois,	55,000	Tennessee,	45,000

Territories and District.

Wisconsin,	80,000	Florida,	55,000
Iowa,	180,000	District of Columbia,	100

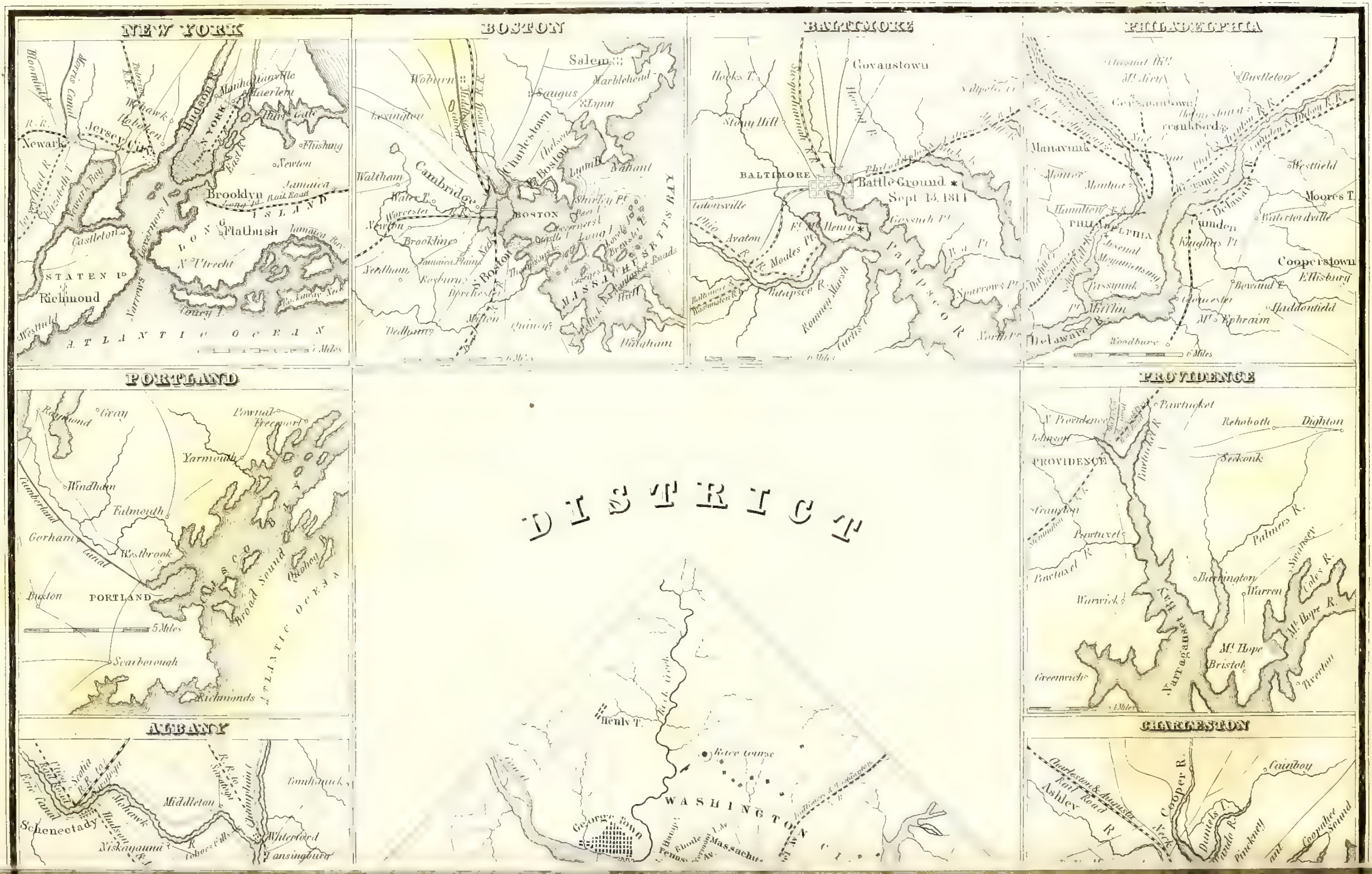
The regions to the west of the Missouri have no separate governments. The constitution requires that a census or enumeration of the population should be taken every ten years, in order to determine the number of representatives to which each State is entitled. Five official enumerations have been taken, which give the following results.

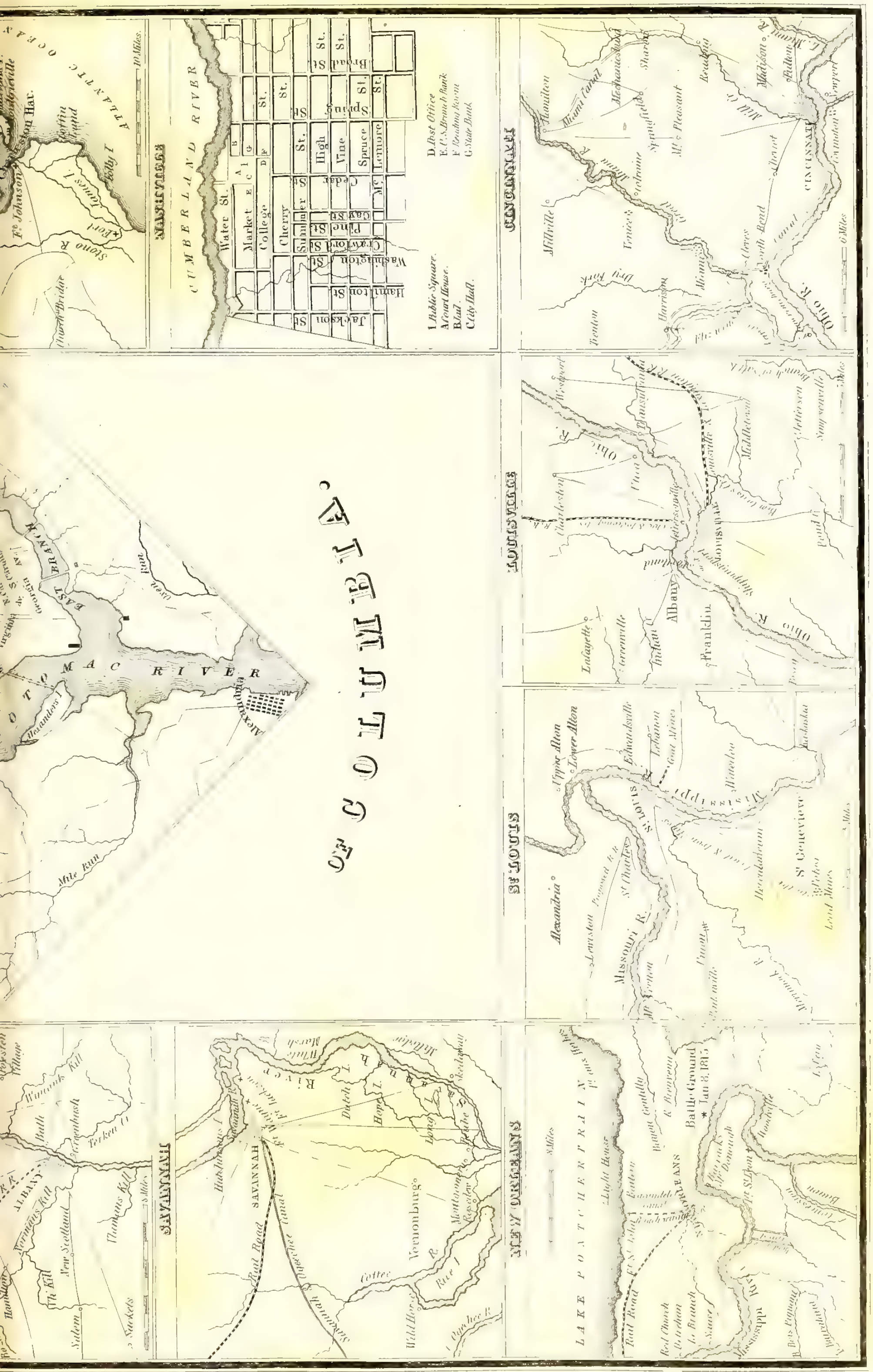
Population at different Periods by official Enumerations.

	Whites.	Slaves.	Free Colored.	Total Colored.	Total Population.
1790,	3,172,464	697,897	59,466	757,363	3,929,827
1800,	4,304,502	893,041	108,398	1,001,439	5,305,941
1810,	5,862,004	1,191,364	186,446	1,377,810	7,239,814
1820,	7,872,711	1,543,688	238,197	1,781,885	9,654,596
1830,	10,537,378	2,009,043	319,599	2,328,642	12,866,020
1840,					

The Indians are not included, and at present there are very few of them remaining east of the Mississippi

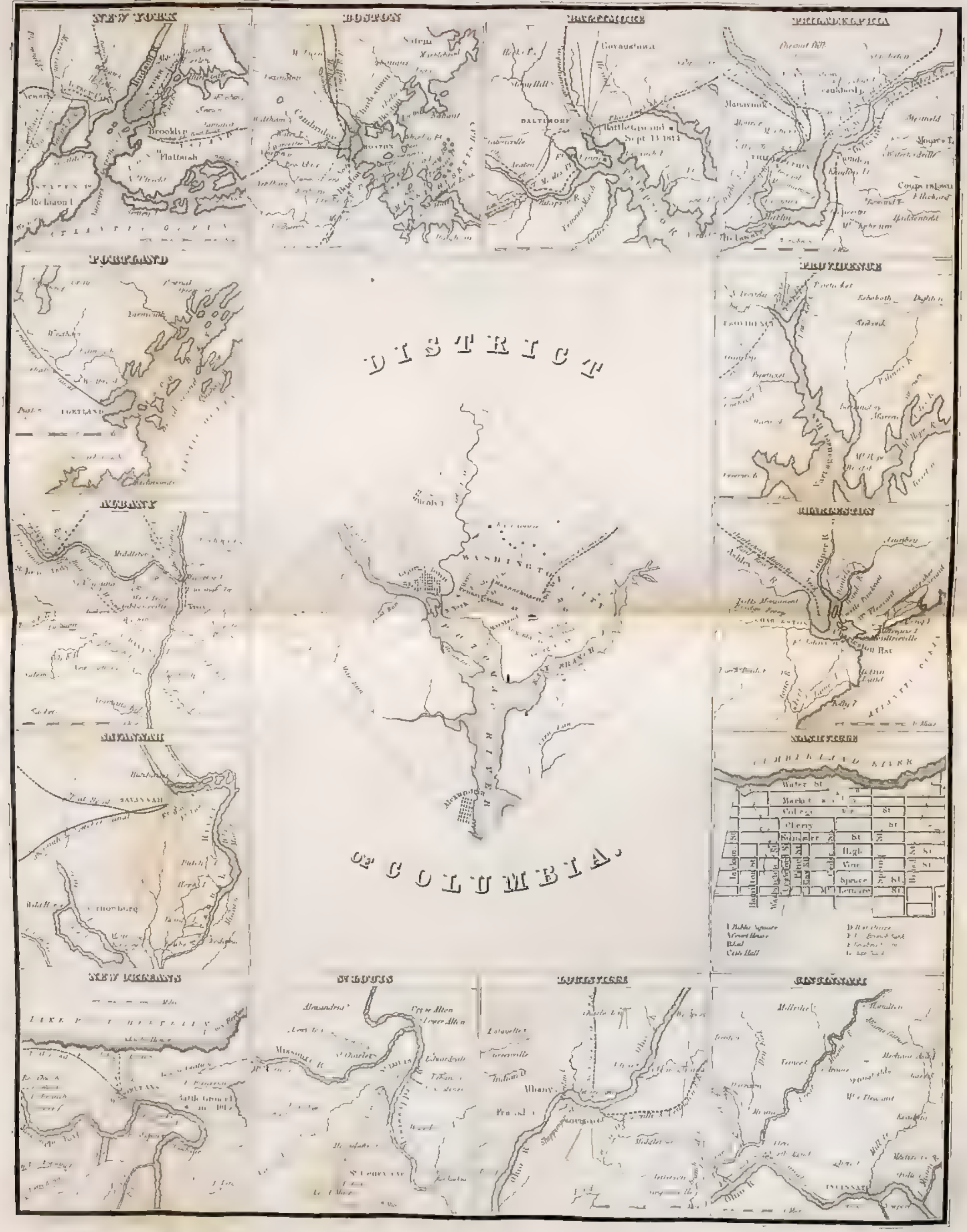
PRINCIPAL CITIES OF THE UNITED STATES.

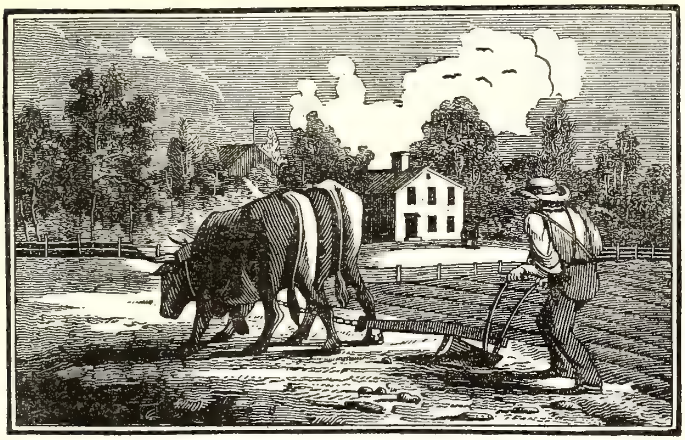




OF COLUMBIA
POTOMAC RIVER
EAST BRANCH
Alexandria
Mile Run
NASHVILLE
CUMBERLAND RIVER
Water St.
Market St.
College St.
Cherry St.
Summer St.
High St.
Vine St.
Spruce St.
Broad St.
Spring St.
Cedar St.
M'Lemore St.
Gay St.
Pine St.
Crawford St.
Washington St.
Hamilton St.
Jackson St.
A Public Square.
A Court House.
B Jail.
C City Hall.
D Post Office
E U.S. Branch Bank
F Planters Bank
G State Bank
ATLANTIC OCEAN
Ft. Johnson
Stono R.
Church Bridge
CINCINNATI
Hamilton
Miami Canal
Springfield
Mt Pleasant
Reading
Sharon
Millville
Venice
Colerain
Dry Fork
North Bend
Cleves
Harrison
Ohio R.
Madison
Newport
LOUISVILLE
Ohio R.
Charlestown
Clarksville
Jeffersonville
Portland
Albany
Franklin
Lafayette
Greenville
Indian C.
Shippingsport
Middletown
Westport
Jeffersontown
Bardstown Road
St LOUIS
Upper Alton
Lower Alton
Mississippi R.
Missouri R.
St Charles
St Louis
Edwardsville
Lebanon
Waterloo
St Genevieve
Herculaneum
Kaskaskia
Alexandria
Lewiston
Mt Vernon
NEW ORLEANS
LAKE PONTCHARTRAIN
Light House
Rail Road
Battle Ground Jan 8, 1815
NEW ORLEANS
Mississippi R.
Red Church
Bayou
SAVANNAH
Savannah River
Rail Road
Ogeechee Canal
Hutchinson's I.
Vernonburg
Rice I.
Montgomery
Wild Horse
Ogeechee R.
Dutch I.
Hope I.
Cottee
ALBANY
Normans Kill
New Scotland
Salem
Bath
Greenbush
Vlamans Kill

PRINCIPAL CITIES OF THE UNITED STATES.





11. *Agriculture.* The vegetable productions of the United States are exceedingly various; there are some, however, common to every section of the Union. Maize, or Indian corn, an indigenous American plant, is cultivated from Maine to Louisiana, but succeeds best in the Western and Middle States. It is adapted to a greater variety of soils and situations than wheat, and yields generally double the produce: land of the first quality has been known to give 100 bushels to an acre. Wheat is also cultivated from one extremity of the Union to the other, but of superior quality in the Middle and Western States. The cultivation of tobacco begins in Maryland, about the parallel of 39° or 40°, and continues through all the Southern States, and in the Western States, chiefly south of the Ohio. It forms the staple of Maryland and Virginia, where it is raised to a greater extent than in any other part of the Union. Beside the large quantity made into snuff, cigars, and manufactured tobacco in the country, about 90,000 hhds. are annually exported. The soil and climate favorable for cotton are not found beyond 37°, though it can be raised as far north as 39° on both sides of the Alleghanies. It was first cultivated for exportation in 1791, and is raised from the Roanoke to the Sabine, forming the staple of the Southern and Southwestern States. In 1800 the cotton crop was 35,000,000 lbs.; at present it is 480,000,000, of which about four fifths are exported. The rice crops require great heat and a marshy soil, commence about the same parallel with the cotton, and have nearly the same geographical range. Rice is cultivated to a great extent in the Carolinas, Georgia, &c., Louisiana, and as high as St. Louis in Missouri. The sugar-cane grows in low and warm situations as high as the latitude of 33°; but the climate favorable for its production does not extend beyond 31° 30′. It is now cultivated to a great extent in Louisiana; about 700 plantations in that State producing 80,000 hogsheads of 1,000 pounds each. Oats, rye, and barley, are raised in all the Northern, and in the upper districts of the Southern States. Hemp, flax, and hops, are produced of an excellent quality. Hemp grows naturally in the Western States, and hops in the Western and Middle States. The vine has been successfully cultivated in various parts of the Union, and the mulberry-tree grows spontaneously, and has been extensively planted of late years. Fruits of all kinds of the temperate and tropical climates, and the culinary vegetables which have been introduced from Europe, thrive here. The dairy and grazing are also important resources in some parts of the country, and great quantities of beef and pork are raised for exportation, particularly in the West. The number of sheep in the United States has been estimated at about 20,000,000, yielding about 50,000,000 lbs. of wool annually.

12. *Commerce.* The United States are the second commercial power in the world, their maritime navigation being inferior only to that of Great Britain, while no country in the world displays such a length of internal navigable channels, natural and artificial. The amount of shipping owned in the United States is about 2,000,000 tons, independently of a great number of large river boats, which navigate the great rivers of the south and west, and the numerous coal-boats of the Pennsylvania waters. Such has been of late years the rapid growth of manufactures, the great developement of internal resources, and the extension of inland navigation. that the coasting trade has steadily increased at a rapid rate, while the foreign trade has been nearly stationary. The annual value of imports is from seventy-five to a hundred million dollars; of exports about eighty millions, of which twenty are articles of foreign produce, and the remainder of domestic. The principal articles of domestic produce exported are cotton, to the value of $40,000,000; bread stuffs $12,000,000; tobacco $6,000,000; rice $2,000,000; timber, naval stores, and pot and pearl ashes, &c. $3,000,000; dried and

pickled fish, whale oil, &c. $2,000,000. The articles of domestic manufacture exported, to the value of $7,000,000, are chiefly cotton goods, manufactures of leather, soap and tallow candles, hats, furniture, refined sugar, tobacco, &c.

13. *Manufactures.* The manufactures of the United States, though of recent origin, are already extensive and increasing. The vast territory of the Union, with all its diversity of climate, and the immense water power afforded by its rivers, furnish the raw materials for almost every sort of manufacture, and a cheap moving force. There are upwards of 1,000 cotton mills in the country, with upwards of 1,800,000 spindles, and 48,000 looms, and producing 230,000,000 yards of cloth yearly ; 300 furnaces make 200,000 tons of iron, which is manufactured into every variety of useful articles ; 5,000,000 bushels of salt are made from the sea and the salt springs of the interior ; woolen goods to the value of $70,000,000 ; hats and caps to that of $10,000,000 ; leather and its various manufactures of the value of 40,000,000 ; furniture to the same amount ; paper to the value of $3,000,000 ; and glass of the same amount, are among the leading manufactured products.

14. *Fisheries.* The products of the fisheries are of great value, as appears from the preceding statements relative to commerce. Cod are taken chiefly on the Newfoundland Banks, and are dried and salted ; herring and mackerel are taken along shore, and the river fisheries are valuable. The whale fishery is chiefly prosecuted in the Southern Atlantic, the Pacific, and Indian Oceans, and the American seamen have far outstripped other nations in the pursuit of this gigantic game. Upwards of 130,000 tons of shipping are employed in the whale fishery, obtaining annually above 100,000 barrels of sperm oil, 115,000 barrels of whale or black oil, and 120,000 pounds of whale bone.

15. *Public Lands.* The National Domain, or Public Lands, consist of tracts of territory ceded to the general government by the several States ; of the lands in the territory of Louisiana, purchased of France ; and those in Florida, acquired by treaty from Spain. A vast portion of this land is occupied by the Indians, who are considered as proprietors of the soil till the government extinguishes their title by purchase. A General Land Office at Washington directs the sale of these territories. All the lands are surveyed before sale ; they are divided into townships of six miles square, which are subdivided into sections of one mile square, containing each 640 acres, and sold in sections, half, quarter, and half-quarter sections The minimum price is fixed by law at a dollar and a quarter an acre. All sales are made for cash. Salt springs and lead mines are reserved, but may be sold by special orders from the President. One section of 640 acres is reserved in each township as a fund for the perpetual support of schools. Five per cent. on all sales of land are reserved, three fifths of which are expended by Congress in making roads leading to the States in which the lands are situated, and two-fifths are expended by the States for the promotion of learning. Up to the present time about 200,000,000 acres of the public lands have been surveyed, of which about 80,000,000 have been sold, and 20,000,000 granted by Congress for education, internal improvement, and other purposes. There remain about 100,000,000 acres surveyed and unsold. The whole quantity of land owned by the United States amounts to about 1,000,000,000 acres.

16. *Revenue and Expenditure.* The revenues of the United States are derived from customs on imports, sales of land, the post-office, and the public lead mines. Of these the customs constitute much the largest item. The amount of the revenue has varied during the last few years from 25 to 30 millions of dollars, of which from 20 to 24 millions were received from customs or duties on foreign merchandize imported into the country, and from 3 to 10 millions from the sale of the public lands. The ordinary expenses of the government amount to about 14 million dollars yearly, the surplus having been employed in the payment of the public debt. The ordinary appropriations are as follows ; civil list $1,500,000 ; military establishment, including fortifications, internal improvements, &c., $5,000,000 ; Indian affairs, $930,738 ; pensions, 2,000,000 ; naval establishment, $3,856,183 ; miscellaneous, as supporting light-houses, &c., $1,392,336 ; for foreign intercourse, $298,550. The expenses of the civil list are the payment of the executive, legislative, and judicial officers of the government.

17. *Taxation, Salaries.* Congress possess the power to impose direct taxes, but this branch of the revenue having been found one of the least productive, and the other sources of supply being abundant, there is no taxation by the general government. Each State levies its own tax for the expense of its local government ; and each city or town provides by taxation for its own municipal concerns. Both the rate and manner of taxation vary in different States.

In some there are taxes on fisheries, mills, carriages, horses, cattle, watches, &c., in others, none of these are taxed. The most common are the capitation and property tax. In Massachusetts every male citizen from 16 to 60 is subject to a poll tax, which is commonly a dollar, or a dollar and a half. The State expenses of Massachusetts amount to less than a dollar to each individual, or the value of one day's labor. The town tax varies in proportion to wealth and numbers in different towns. In remote country towns, with no density of population, the the tax is about 1 dollar 25 cents to each individual; in Newburyport, a large town, not of the first class, 2 dollars; in Boston, 5 dollars. Taxes for the support of religion, are, with trifling exceptions, voluntary.

The highest salary is that of the President, who receives 25,000 dollars a year; Ministers Plenipotentiary receive 9,000 dollars annually, and the same sum for an outfit; the Secretaries of State, the Treasury, War, and the Navy, and the Postmaster-General, 6,000; the Vice President, 5,000. The Chief Justice, 5,000; the Associate Justices, 4,500; Chargés d'Affaires, 4,500; Secretaries of Legation, 2,000; Members of Congress, 8 dollars a day.

18. *Army and Navy.* The peace establishment of the army, as at present fixed by law of Congress, includes 12,500 men; the army is divided into 2 divisions, the Eastern and Western, and consists of 4 regiments of artillery, 8 regiments of infantry, and 2 regiments of dragoons, under the command of a major-general and 2 brigadier-generals. Connected with the War Department is the Military Academy at West Point on the Hudson, for the education of officers. The Navy of the United States is small, but in admirable order, and is of great importance in peace, by affording protection to commerce in foreign seas. There are navy-yards at Portsmouth, Boston, New York, Philadelphia, Washington, Norfolk, and Pensacola. The naval force comprises 12 ships of the line, 26 frigates, 24 sloops of war, and some smaller vessels; and graving or dry docks of granite have been constructed at Norfolk and Charlestown, of a size to receive the largest vessels.

19. *Posts.* The post roads in the United States amount to about 350,000 miles, and the annual transportation of the mail is about 35,000,000 miles. The number of post offices is 12,600; the revenue arising from the department is expended upon the extension and improvement of the post establishment, so as to maintain a regular and safe conveyance to the remotest settlements.

20. *Mint.* The mint is established in Philadelphia, with branches at Charlotte in North Carolina, and Dahlonega in Georgia, for the coinage of gold, and one in New Orleans for the coinage of both gold and silver. The whole coinage from 1792 to 1838 was as under.

	Pieces Coined.	*Value.*
Gold	5,817,458	$26,237,735
Silver	125,530,962	50,345,282
Copper	80,361,965	763,431
Totals,	211,710,385	77,346,448

21. *Slavery.* Slavery exists in 13 States; Delaware, Maryland, Virginia, North and South Carolina, Georgia, Alabama, Louisiana, Tennessee, Kentucky, Mississippi, Missouri, and Arkansas, also in the District of Columbia, and the Territory of Florida. There are also some slaves in Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania, but slavery, being abolished by law in these States, will cease on the exportation or death of such as are slaves at present. Maine, New Hampshire, Vermont, Massachusetts, Ohio, Illinois, Michigan, and Indiana, have no slaves, and in Maryland they are on the decrease. In South Carolina and Louisiana only do they exceed the free population.

22. *Religious Denominations.* The religious sects are numerous in the United States; they include Baptists, who have 5,075 congregations, and 3,370 preachers; Methodists, with 2,200 preachers; Presbyterians, with 2,532 congregations and 2,008 preachers; Orthodox Congregationalists, 1,000 ministers and 1,381 congregations; Episcopalians, 596 clergymen and 950 churches; Dutch Reformed, 190 churches and 132 pastors; German Reformed, 160 ministers and 570 churches; Christians, Universalists, Lutherans, Friends, Roman Catholics, and Unitarians, with some separatists from the Baptists, Methodists, and Presbyterians.

23. *Education, Libraries.* There are about 70 colleges in the United States, but most of these are merely high or classical schools, and many of them have no funds and a small number of students. In several of the States the lower or elementary branches are made accessible to all gratuitously, by means of free schools; this is particularly the case in New England,

New York, and Ohio, and more recently measures have been taken to introduce the same blessing into New Jersey and Pennsylvania. Ample funds exist in the Northwestern States for the support of public education, and the system of free instruction has been partially established ; but the recent settlement and sparse population of those States have hitherto been an obstacle to its complete and efficient operation. In the Southern and Southwestern States little has been done for common education. None of the institutions of the country afford means for a thorough, learned, and scientific education, such as is provided by the European universities. There is also a great deficiency of libraries in the country, and no writer or student can pursue an extended course of historical or scientific research without finding himself embarrassed by the want of books. There are many libraries in Europe, which contain upwards of 200,000 volumes, but there is not one in this country that contains 50,000.

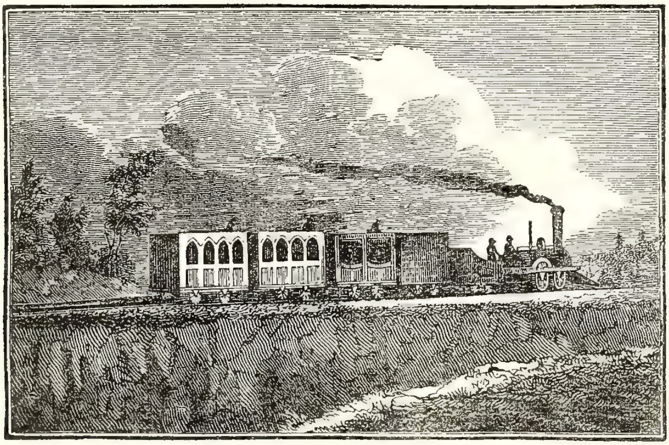
Harvard University	43,000	New York Society	30,000
Boston Athenæum	30,000	Philadelphia City	44,000
Congress Library	20,000	Charleston City	15,000.

24. *Canals.* Of the interior water communications of this country, those bestowed by nature have already been alluded to. No part of the world presents such an extensive river commerce. Steam vessels, a grand improvement first introduced in America, ply on all the principal streams, and of nearly 200,000 tons of this species of craft belonging to the United States, almost the whole is on the interior waters. Neither the States nor individuals have been slow in improving and extending these natural advantages ; and the spirit with which they have undertaken, and the perseverance they have shown in executing, the most magnificent plans, have shed a lustre on the American name. The great land-locked bays of the coast have been connected by a chain of canals, affording a safe internal water-route from Narragansett Bay to Albemarle Sound. The eastern and western waters have been united by several channels, which either turn the flanks of the Alleghanies or surmount their summits. The waters of the lakes and the Mississippi have been connected at various points, and the obstacles in the navigation of the most important rivers have been overcome by removing the bars or ledges which obstructed their channels, or by side-cuts, locks, and dams. The whole length of this artificial navigation is nearly 4000 miles, all of which, with one or two trifling exceptions, has been executed in the short space of 20 years. These great works have already given fresh life to the existing manufactures, and encouraged the establishment of new branches, invigorated, and in many places, created, internal trade ; promoted agriculture, which requires a cheap and easy transportation for the bulky articles which it consumes and produces, and developed, in an astonishing degree, the mining industry of the country.

Tabular View of the Principal Canals.

Names.	*Length. Miles.*
Annapolis, from Annapolis to the Chesapeake and Ohio Canal	44½
Blackstone, Worcester to Providence	45
Black River, Rome to Carthage	76
Cayuga, Geneva on Seneca Lake to Montezuma on Erie Canal	20
Brunswick, to the Alatamaha	12
Central, from Wabash by valley of White River to Evansville	290
Champlain, from Whitehall to Waterford on the Hudson	63
Chemung, Elmira to Seneca Lake	23
Chenango, Binghampton on North Branch of Susquehanna to Utica	96
Chesapeake and Ohio, Georgetown on Potomac to Cumberland	186
Chesapeake and Delaware, from the Delaware to the Elk, ship canal	14
Cross Cut, Terre Haute to Eel River and Central Canal (Indiana)	40
Cumberland, Portland to Sebago Pond	20
Clinton and Kalamazoo, Lake St. Clair to Lake Michigan	210
Delaware, from Easton to Bristol	60
Delaware and Hudson, mouth of Roundout Creek to mouth of Lackawaxen	82½
Delaware and Raritan, New Brunswick to Bordentown, ship canal	42½
Navigable feeder of, from Bull's Island to Trenton	24
Dismal Swamp, Deep Creek of Chesapeake Bay to Joyce's Creek of Albemarle Sound	23
Erie, Albany to Buffalo	363
Farmington, New Haven to Northampton	78
Genesee Valley, Rochester to Olean on the Alleghany	107
Illinois and Chicago, from the Illinois to Lake Michigan	100
James River, Richmond to Lynchburg	150
Lackawaxen, Delaware to Honesdale	36
Lafourche, Mississippi above New Orleans to the Atchafalaya	85
Lehigh, Easton to White Haven	66
Louisville and Portland, ship canal round the falls in the Ohio	2
Middlesex, Boston to Lowell	27
Miami, Cincinnati to the Maumee	265
Morris, Jersey City opposite New York to Easton	101
Muscle Shoal, round the Muscle Shoals in the Tennessee	37
Northern Canal, Fort Wayne to Lake Michigan (Indiana)	160
Ohio and Erie, Portsmouth to Cleaveland, with lateral branches	340
Oswego, Syracuse on Erie Canal to Oswego	38
Pennsylvania,	
Central and Western Divisions, Columbia to Pittsburgh, including Alleghany Portage railroad of 36½ miles	312

Names	Length. Miles.
Susquehanna Division, Juniata to Northumberland	39
West Branch Division, Northumberland to Dunnstown	66
North Branch Division, Northumberland to the Lackawanna	76
Beaver Division, from Beaver to Mercer County	30
French Creek Division	46
Pennsylvania and Ohio, Akron on Ohio Canal to Newcastle on Beaver Canal	82
Sandy and Beaver, Bolivar on Ohio Canal to mouth of Little Beaver	73
Santee, from the Santee to the Cooper	22
Savannah and Alatamaha	60
Schuylkill, Philadelphia to Port Carbon	108
Susquehanna, Columbia to Port Deposit	40
Union, Middletown on the Susquehanna to Reading	82
Wabash and Erie, Lafayette (Indiana) to Manhattan on the Maumee (Ohio), in progress	210
To be extended to Terre Haute	80
Walhonding, from Roscoe up Walhonding River (Ohio)	25
White Water, Cambridge City (Indiana) to Lawrenceburg, in progress	76
White Water and Cincinnati	25



25. *Railroads.* The Americans have equally surpassed all other people in the number and extent of their railroads, having in less than ten years constructed nearly 3,500 miles of these artificial levels, over which carriages are propelled by locomotive steam-engines at the rate of from 20 to 25 miles an hour. Although this contrivance is less adapted than canals to the conveyance of bulky articles, yet it possesses some advantages over that mode of transportation, such as that of not being interrupted by ice, and that of being suited to some localities in which artificial water-communications would be impracticable. The following table presents a view of the principal railroads completed, or in actual progress, in the United States.

Principal Railroads in the United States.

Names.	Length. Miles.
Alleghany Portage, Holidaysburg to Johnstown (Pa.), connecting Central and Western Divisions of Pennsylvania Canal	36½
Auburn and Syracuse, Auburn to Syracuse (N. Y.)	25
Auburn and Rochester, Auburn to Rochester	75
Augusta and Athens, (Georgia), in progress	114
Baltimore and Susquehanna, Baltimore through York to Wrightsville	70
Baltimore and Ohio, completed to Harper's Ferry	80
Baltimore and Philadelphia, Baltimore through Wilmington to Philadelphia	92½
Baltimore and Washington	40
Boston and Concord, from Lowell to Concord (N. H.)	60
Boston and Lowell	25½
Boston and Maine, from Wilmington on Lowell railroad to Dover	45
Boston and Stonington, through Providence	89
Boston and Worcester. See Western Railroad.	
Brunswick, Brunswick (Geo.) to the Appalachicola	220
Buffalo and Niagara Falls, (N. Y.)	23
Camden and Amboy, Delaware opposite Philadelphia to Amboy on the Raritan	61
Catskill and Canajoharie, (N.Y.)	68
Central, Savannah to Decatur (Geo.)	270
Charleston and Cincinnati, (proposed)	600
Central. See Illinois.	
Clinton and Port Hudson, Louisiana	28
Columbia, Philadelphia to Susquehanna at Columbia	81½
Cumberland Valley, Harrisburg to Chambersburg, Penn.	49
Danville and Pottsville, Schuylkill to Susquehanna	52
Detroit and Pontiac	25
Detroit and St. Josephs, Detroit to Lake Michigan	200
Detroit and Shelby, Detroit to Utica	23
Eastern Shore, Elkton to Tangier Sound (Md.), (proposed)	118
Eastern, Boston to Newburyport	33
Erie and Kalamazoo, Toledo (Ohio) to Adrian (Michigan)	33
Fayetteville and Western, N. C. (proposed)	
Grand Junction, Decatur (Geo.) to the Tennessee	110
Georgia, Augusta to Decatur	150
Gettysburg and Wrightsville, (Pa.)	42
Harrisburg and Lancaster, (Pa.)	37
Hiwassee, Knoxville to the Hiwassee at Calhoun	75
Hudson and Berkshire, Hudson City to West Stockbridge, (Mass.)	32
Illinois State Works, in progress:	
Central, from confluence of Ohio and Mississippi	

Names.	*Length. Miles.*
by Vandalia and Southern terminus of Illinois and Michigan Canal to Galena	460
South Cross, from Alton to Mt. Carmel on the Wabash, with branch from Edwardsville to Shawneetown	320
North Cross, from Quincy on Mississippi by Springfield to Indiana State line near Danville	220
Peoria, from Warsaw on Mississippi by Peoria to Bloomington	160
Alton, from Alton by Shelbyville to Indiana boundary near Terre Haute	160
Ithaca and Owego, North Branch of Susquehanna to Cayuga Lake	29
Lawrenceburg and Indianapolis, Indianapolis to the Ohio (Indiana)	90
Little Miami, Cincinnati to Springfield	70
Lexington, Lexington by Frankfort to Louisville (Ky.)	80
Lockport and Niagara Falls, (N. Y.)	20
Long Island, Brooklyn to Greenport, (in progress)	98
Louisa, Louisa Court House to Fredericksburg and Richmond Railroad	40
Madison and Lafayette, the Ohio to the Wabash (Indiana)	150
Mad River, Dayton to Sandusky (Ohio)	160
Mississippi and Pearl, Jackson to Natchez (Miss.)	120
Mohawk and Hudson, Albany to Schenectady	16
Michigan and Laporte, Michigan City to Laporte (Indiana)	12
Montgomery, Montgomery (Al.) to Franklin (Geo.)	120
Morris and Essex, from Newark to Morristown (N. J.)	20
Newcastle and Frenchtown, Delaware to the Elk	16½
New Orleans to Nashville, (proposed)	
New Haven and Hartford, (Ct.)	40
New Jersey, Jersey City opposite New York, through New Brunswick to Trenton	60
New York and Albany, (proposed)	
Northern, (Michigan), Lake St. Clair to Grand Rapids on Grand River	200
Norwich and Worcester, Norwich (Ct.) to Worcester (Mass.)	58
New York and Erie, Tappan Sloat on the Hudson to Dunkirk on Lake Erie	340
Oxford, Coatesville on Columbia Railroad to Port Deposit	31
Petersburg and Roanoke, Petersburg (Va.) to Blakely (N. C.)	60
Pensacola and Montgomery, (Alabama)	160
Philadelphia and Trenton	26
Philadelphia and Reading	56
Norristown, Philadelphia to Norristown	17
Portsmouth and Roanoke, Portsmouth opposite Norfolk to Weldon	80
Raleigh and Gaston, Raleigh to Gaston on the Roanoke	86
Rensselaer, Troy to Ballston	25
Richmond and Potomac, Richmond by Fredericksburg to Potomac	75
Richmond and Petersburg	21
Roanoke and Greensville, Bellfield (Va.) to the Roanoke (N. C.)	18
St. Francisville and Woodville, (Mississippi)	26
Saratoga and Schenectady	22½
Selma and Tennessee, Selma to the River Tennessee (Alabama)	170
Somerville, Somerville to Elizabethtown, (N. J.)	25
South Carolina, Charleston to Hamburg	135
Taunton and Old Colony, Providence railroad to New Bedford	33
Tonawanda, Rochester to Attica (N. Y.)	47
Southern, (Michigan), Monroe to Lake Michigan	180
Tuscumbia and Decatur, round Muscle Shoals (Ala.)	15
Utica and Schenectady	84
Utica and Syracuse	50
Vicksburg and Jackson, Jackson to Vicksburg, (Miss.)	46
Western, from Boston by Worcester and Springfield to Western line of Massachusetts	160
Winchester, Winchester (Va.) to Potomac	30
Williamsport and Elmira, West Branch of Susquehanna to the Tioga	74
Wilmington and Raleigh, Wilmington to Halifax on the Roanoke.	161

26. *Government.* The United States form a Confederated Republic. The Legislative power is vested in a Congress, which consists of a Senate and House of Representatives. The Senate is composed of two senators from each State, chosen by the legislature thereof. The senators are chosen for six years, but divided into classes, so that one third of the Senate is renewed once in two years. No person can be a senator who is not thirty years of age, and who has not for nine years been a citizen. The Senate has the sole power to try all impeachments, and the Vice-President is President of the Senate.

The House of Representatives is composed of members chosen every second year. No person is qualified to be a member who is not 25 years of age, and who has not been for 7 years a citizen of the United States. The apportionment fixes the rate of representation at 1 representative for every 47,700 inhabitants. In the enumeration three fifths of the slaves are excluded. All bills for raising a revenue must originate in the House of Representatives. Any bill may become a law without the approbation of the President, if, after he returns it, it shall be reconsidered and approved by two thirds of both Houses.

The Congress has power to lay and collect taxes, duties, imposts, and excises, to provide for the common defence, to borrow money on the public credit, to regulate foreign and domestic commerce, to make bankrupt laws, coin money, and punish counterfeiters, establish post-offices, and post-roads, secure copy-rights and patent-rights, establish tribunals inferior to the Supreme Court, punish felonies and piracies committed on the high seas, declare war and grant letters of marque and reprisal, make rules concerning captures, raise and support armies, provide and maintain a navy, provide for the calling out of the militia to execute the laws of the Union, suppress insurrections, and repel invasions, &c.

The Executive power is vested in a President, chosen for the term of 4 years, in the following manner. Each State shall appoint in a way prescribed by its legislature, a number of electors equal to its whole representation in the Senate and House of Representatives ; these meet in their respective States and vote by ballot for President and Vice-President, one of whom must not be an inhabitant of the same State with themselves. The votes are then sealed and sent to the President of the Senate, who counts them before both Houses of Congress. The person having the greatest number of votes is President, if such number be a majority of the whole number of electors; otherwise the House of Representatives immediately choose a President from among the 3 candidates who have the greatest number of votes. In this election the votes are taken by States. If no President is thus chosen, the Vice-President performs the duties of the office. If the Vice-President be not chosen by a majority of the electors, the Senate choose one from the two highest members on the list.

No person can be President who is not a native born citizen, or who was not a citizen, at the time of the adoption of the Constitution, or who is not 35 years of age, or has not been a resident in the United States for 14 years. The eligibility of the Vice-President is similar.

The President is Commander-in-Chief of the Army and Navy, and of the militia when in the actual service of the United States. With the advice and consent of the Senate, he makes treaties, appoints ambassadors, Judges of the Supreme Court, and other officers of the United States whose appointment is not otherwise provided for by the Constitution. He takes care that the laws shall be executed, and commissions all officers. The President and Vice-President may be removed on impeachment and conviction of bribery, treason, or other high crimes and misdemeanors.

27. *Judiciary.* The judicial power of the United States is vested in one Supreme Court, and in such inferior courts as Congress may, from time to time, establish. The present judicial establishment of the United States consists of a Supreme Court, 34 District Courts, 9 Circuit Courts, which are thus organized; the Supreme Court is composed of 1 Chief Justice, and 8 Associate Justices, who hold a court in the city of Washington, annually; besides which, each of these justices attends in a certain circuit, comprising 2 or more districts, appropriated to each, and, together with the judge of the district, composes a Circuit Court, which is held in each district of the circuit.[*]

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[*] The District Courts are held, respectively, by the District Judge alone. Appeals are allowed from the District to the Circuit Court in cases where the matter in dispute, exclusive of costs, exceeds the sum or value of 50 dollars, and from the Circuit Courts to the Supreme Court, in cases where the matter in dispute, exclusive of costs, exceeds the sum or value of 2,000 dollars; and in some cases, where the inconvenience of attending a court by a justice of the Supreme Court is very great, the District Courts are invested with Circuit Court powers. Each State is 1 district, for the purpose of holding District and Circuit Courts therein, with the exception of New York, Pennsylvania, Virginia, Tennessee, Louisiana, Mississippi, and Alabama, each of which is divided into 2 Districts. There are, besides, Territorial Courts, which are temporary, and lose that character whenever a Territory becomes a State. In addition to the District Court for the District of Columbia, there is a Circuit Court for that District.

The Supreme Court of the United States has exclusive jurisdiction of all controversies of a civil nature where a State is a party, except between a State and its citizens; and except also between a State and citizens of other States, or aliens; in which latter case it has original, but not exclusive jurisdiction. It has, exclusively, all such jurisdiction of suits or proceedings against ambassadors, or other public ministers or their domestics, or domestic servants, as a court of law can have or exercise consistently with the law of nations; and original, but not exclusive, jurisdiction of all suits brought by ambassadors, or other public ministers, in which a consul, or vice-consul, is a party. The Supreme Court has appellate jurisdiction from final decrees and judgments of the Circuit Courts in cases where the matter in dispute, exclusive of costs, exceeds the sum or value of 2,000 dollars, and from final decrees and judgments of the highest courts of the several States in certain cases, as hereinafter mentioned. It has power to issue writs of prohibition to the District Courts, when proceeding as courts of admiralty and maritime jurisdiction, and writs of *mandamus*, in cases warranted by the principles and usages of law, to any courts appointed, or persons holding office, under the authority of the United States. — The trial of issues in fact in the Supreme Court, in all actions at law against citizens of the United States, is by jury.

The Circuit Courts of the United States have original cognizance, concurrent with the courts of the several States, of all suits of a civil nature, at common law, or in equity, where the matter in dispute exceeds, exclusive of costs, the sum or value of 500 dollars, and the United States are plaintiffs or petitioners, or an alien is a party, or the suit is between a citizen of the State where the suit is brought and a citizen of another State. They have exclusive cognizance of all crimes and offences cognizable under the authority of the United States (except where the laws of the United States otherwise direct), and concurrent jurisdiction with the District Courts of the crimes and offences cognizable therein.

The District Courts of the United States have, exclusively of the courts of the several States, cognizance of all crimes and offences that are cognizable under the authority of the United States, committed within their respective districts, or upon the high seas, where no other punishment than whipping, not exceeding 30 stripes, a fine not exceeding 100 dollars, or a term of imprisonment not exceeding 6 months, is to be inflicted, and also have exclusive original cognizance of all civil causes of admiralty and maritime jurisdiction, including all seizures under laws of impost, navigation, or trade, of the United States, where the seizures are made on waters which are navigable from the sea by vessels of 10 or more tons burden, within their respective districts, as well as upon the high seas; saving to suitors, in all cases, the right of a common law remedy, where the common law is competent to give it. and also have exclusive original cognizance of all seizures on land or other waters than as aforesaid, made, and of all suits for penalties and forfeitures incurred, under the laws of the United States.

An Indian in full dress.

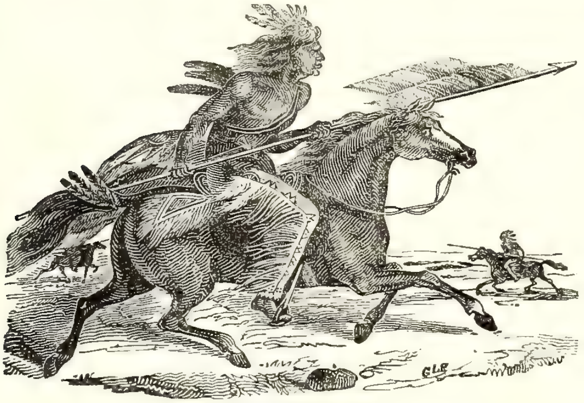
28. ***Indians.*** The vicinity of the whites has been generally fatal to the aboriginal race. Those who survive the communication are in a state of decay, and have lost the virtues of their former state, without acquiring from civilization any thing but its vices. The *Cherokees*, *Creeks*, *Choctaws*, &c., have made the greatest advance in civilization. The first step was to subsist by agriculture rather than hunting, and to have a settled home. The Cherokees have many of them large possessions, a becoming dress, and sufficient knowledge in the useful arts to manufacture clothing and various implements of wood and iron. They have reduced their language to a system, and have a newspaper published in their own alphabet. They have mounted guards well armed, who have great authority, and who constantly ride in every direction. The missionaries have had good success among the Cherokees, and there are many books in their own tongue scattered among them. It is not pretended that this people have reached a state of refinement; but their present state establishes the fact that the aborigines may live together in large communities by the pursuits of agriculture, and increasing knowledge. Some of their amusements are of a very athletic kind, particularly the game of ball, which is pursued by whole villages and even tribes, with so much animation that a stranger would suppose it a battle.

Many general traits run through all the tribes, or nations, as they are sometimes called, being independent and distinct from each other. All, or nearly all, have the same fatal and irrepressible thirst for spirituous liquors, which has become the bane of the race. To obtain this gratification they will part with whatever they value most ; and though placable to each other when sober, they will, under the influence of liquor, commit the most brutal and sanguinary crimes. In all other respects the Indians are distinguished for self-restraint. They will bear hunger and pain without complaint, and so far restrain all outward expression of grief or agony, that it is hard to discover that they suffer either. But all restraint, all self-command, deserts them at the sight of spirits. This appetite for ruinous indulgence is general, though some tribes remote in situation, and others who have never tolerated the introduction of spirits, have escaped the fatal consequences. But the vicinity of the traders will destroy this safeguard. In all the tribes it is inculcated that it is honorable to bear pain without complaining ; and in appearance, at least, the Indian has arrived at the perfection of Stoicism. He has been truly called a " Stoic of the woods, a man without a tear." The best trained courtier has not a countenance so inaccessible to the impulse of emotion, as that of the Indian. It is highly honorable to the Indians that with them, and in any exasperated state of warfare, the honor of a female captive is always safe : the oppression of females is, however, no less general, and it is doubtful if the restraint arises altogether from sentiments of justice or mercy. The condition of females invariably marks the state of civilization, and we must, therefore, rank at a low rate the state of society among the most enlightened of the Indian tribes. The sterner passions are developed, while the softer ones are subdued. Courage is ranked above justice, and artifice above truth. The females are invariably slaves ; though in some tribes the servitude is less oppressive than in others. To make war and to hunt, are the sole employments of the men ; to cut wood, to draw water, to carry burdens, to be humble, obedient and passive, is the lot of women. In such a state of society some of the chief elements of moral sentiment are wanting. Want of chastity is generally disgraceful in an unmarried female, and adultery is severely punished by the husband, if committed without his connivance.

Polygamy is very generally practised, though in some tribes it is unknown. In general the Indians, remote from the influence of whites, live in a state of warfare, in which they commit

Indian Council.

the extremes of cruelty. When not engaged in war or hunting, they are listless and indolent. Nothing can excite them but violent emotions. They are vindictive above all men, and seldom forget an injury. They are, however, equally mindful of a benefit, and cannot be accused of ingratitude. Many customs pervade all the tribes; others are local. It is universal to take the scalps of enemies in war, and to smoke the calumet as the sign or ratification of peace. The pipe is with them what salt is with the Arabs. They are hospitable, and will share their last morsel with a stranger. The different tribes of nations communicate with each other by a language of signs, which has grown up into a copious system.



Sioux Horseman.

The *Ottawas*, *Winnebagoes*, *Miamis*, *Potawatomies*, *Menomonies*, *and Iowas*, living near the whites, have lost much of their ancient character. The forest has been thinned of game, and agriculture is not followed with success; so that the tribes are often in want. The *Sacs* and *Foxes*, the *Chippewas* and the *Sioux*, or *Dahcotahs*, are composed of numerous tribes, occupying a wide extent. The Sioux are divided into many tribes, and they are a distinct people. They are brave and warlike. Of this race are the several tribes of Yanktons and Tetons, the Wappatones, the Wahpatootas, the Sisatoons, and the proper Sioux, about the Falls of St. Anthony. The Chippewas have been more described by travelers. They are tall and thin, well formed and active, though not strong; and distinguished from the Missouri Indians by the absence of the aquiline nose. They are boastful, and consider themselves created for the noblest purposes, and that white men are doomed to trade and manufacture for the use of the Indians; "As stupid as white men," is a common saying. Chastity is a virtue much esteemed among them. It is peculiar to them, and a few tribes connected with them, to have *totems* or figures of objects, as a family or tribal name; such as deer, swans, &c. They never marry within the same totem, and all who bear the same are considered as relations. Like all Indians they trust in dreams. They have various feasts. They have also tales and songs.*

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* The following is an apologue.

"A man from the North, gray-haired and leaning on his staff, went roving over all countries and climes. Looking round him one day, after having traveled without any intermission for four moons, he sought a spot on which to recline and rest himself. He had not been long seated before he saw before him a young man, very beautiful in his exterior, with rosy cheeks, sparkling eyes, and his head crowned with flowers; and from between his lips he blew a breath that was sweet as the wild mountain flower. Said he old man to him, as he leaned upon his staff, his beard reaching low down upon his breast, 'let us repose here awhile and converse a little. But first we will build a fire, and we will bring together much wood, for it will be needed to keep us warm.' The fire was made, and each took his seat by it, and began to converse, each telling the other where he came from, and what circumstances had befallen them by the way. Presently the young man felt cold. He looked round him to see what had produced the change, and pressed his hands against his cheeks to keep them warm. At this moment the old man spoke, and said, — 'When I wish to cross a river, I blow upon it and

A Chippeway makes a feast for the dead, a feast called for by dreams, a feast for his "medicine," or charms, and a boy's feast, held when a youth has killed the first animal. They have fasts also, and by many praises encourage their children to abstain from food for several days. This inures them to what they are sometimes compelled by necessity to endure. The Chippeways are distributed into families rather than into tribes, from the nature of the country where they dwell. Between them and the Sioux there is constant and irreconcileable hatred.

The Chippeways subsist principally on fish and wild rice. The Baptist Missionary Society has been the means of leading many of them into a better kind of life, and of instructing them at the same time in a better creed, and better arts and pursuits. They entertain, like most of the Indians, a belief in a Supreme Being, the "Master of Life," but they have little conception of a moral accountability. Polygamy is common. They have no marriage ceremony. The preliminaries are generally settled by relations of the parties; in the absence of the man, these bring the bride to his hut, where he finds her, and sits down, or walks away, as he would express approbation or dissent. The dead are buried deep, as much as eight feet, while the Sioux barely cover them. The bodies of chiefs are wrapped in blankets or bark, and raised on platforms. For several nights after an interment, fire is placed upon the grave.* The

make it hard, and walk over upon its surface. I have only to speak and bid the waters be still, and touch them with my finger, and they become hard as stone. The tread of my foot makes soft things hard; and my power is boundless!'

"The young man, feeling still colder, and growing tired of the old man's boasting, and morning being nigh, as seen by the rosy tints in the east, said, 'Now, my friend, I wish to speak.' 'Speak,' said the old man, 'my ear, though it be old, is open, it can hear.' 'I go,' said the young man, 'over all the earth too. I have seen it covered with snow, and the waters I have seen hard; but I have only passed over them, and the snow has melted; the mountain rivulets have begun to run, the rivers to move, and the ice to melt; the earth has become green under my tread, the flowers blossomed, the birds were joyful, and all that you have referred to, as being produced by your power, has vanished!'

"The old man fetched a deep sigh, and, shaking his head, said, 'I know thee, thou art Spring!' 'True,' said the young man, 'and here, behold my head; see it crowned with flowers; and my cheeks, how they bloom; come near and touch me. Thou,' exclaimed the young man, 'art Winter! I know thy power is great; but thou darest not come to my country. Thy beard would fall off, and all thy strength would fail, and thou wouldst die.' The old man felt the truth of the remark, and before the morning was fully come he was seen vanishing away. But each, before they parted, expressed his hope that they might meet again."

* A small war party of Chippeways encountered their enemies upon an open plain, where a severe battle was fought. Their leader was a brave and distinguished warrior, but he never acted with greater bravery, or distinguished himself for greater personal prowess, than now. After turning the tide of battle against his enemies, and while shouting for victory, he received an arrow in his breast, and fell dead upon the plain. No warrior thus killed is ever buried; and, according to ancient custom, he was placed in a sitting posture upon the field, his back supported by a tree, and his face toward the course in which their enemies had fled. His head dress and equipments were accurately adjusted, as if living, and his bow leaned against his shoulder. In this posture his companions left him. A fate, which appeared so evident to all, proved, however, deceptive in the result. Although deprived of the power of utterance and the ability to move, he heard distinctly all that had been said by his friends. He heard them lament his death, without the power of contradicting it; and he felt their touch, as they adjusted his posture, without the strength to reciprocate it. His anguish, when he felt himself thus abandoned, was raised to the extreme; and his wish to follow his friends on their return so completely filled his mind, when he saw them, one after another, take leave of the corpse and depart, that, after making a violent exertion, he arose, or seemed to himself to rise, and follow them. But his form was invisible to them; and this gave new cause for the surprise, disappointment, and rage, which alternately filled his breast. He followed their track, however, with great diligence. Wherever they went, he went; when they ran, he ran; when they encamped, he encamped; when they slept, he slept; when they awoke, he awoke. In short, he mingled in all their labors and toils; but he was excluded from all their sources of refreshment, except that of sleeping, and from the pleasures of participating in their conversation, for all that he said was unattended to.

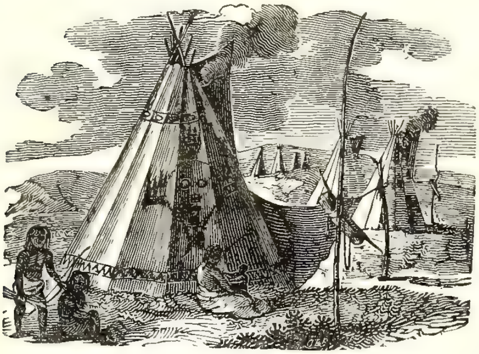
"Is it possible," he exclaimed, "that you do not see me, that you do not hear me, that you do not understand me? will you suffer me to bleed to death, without offering to staunch my wounds? will you permit me to starve in the midst of plenty? have those whom I have so often led to war, so soon forgotten me? is there no one who recollects me, or who will offer me a morsel of food in my distress?" Thus he continued to upbraid his friends at every stage of the journey, but no one seemed to hear his words; or if they heard his voice they mistook its sound for the winds of summer, rustling among the green leaves.

At length the returning war party reached their village; and their women and children came out, according to custom, to welcome their return and proclaim their praises. Kumaudjeewug! Kumaudjeewug! Kumaudjeewug! They have met, fought, and conquered, was shouted from every mouth, and resounded through the most distant parts of the village. Those who had lost friends came eagerly to inquire their fate, and to know whether they had died like men. The decrepit father consoled himself for the loss of his son, with the reflection that he had fallen manfully, and the widow half forgot her sorrow amid the praises that were uttered of the bravery of her departed husband. The breasts of the youths glowed with martial ardor as they heard these flattering praises; and children joined in shouts of which they scarcely knew the meaning. But amidst all this uproar and bustle no one seemed conscious of the presence of the wounded warrior chief. He heard many inquiries of his own fate; he heard them relate how he had fought, conquered, and fallen with an arrow pierced through his breast, and that his body had been left among the slain.

"It is not true," replied the indignant chief with a loud voice, "that I was killed and left upon the field. I am here! I live! I move! See me! Touch me! I shall again raise my lance in battle, and sound my drum in the feast." But nobody seemed conscious of his presence, and they mistook his loud voice for the whispering winds. He now walked to his own lodge; he saw his wife within tearing her hair, and raising her lamentations over his fate; he endeavored to undeceive her, but she also seemed equally insensible of his presence or his voice; she sat in a despairing manner, with her head reclining upon her hands; he asked her to bind up his wounds, but she made

Chippeways as well as some other tribes have sometimes been cannibals, in the case of enemies, taken or killed in war.

The Kansas and the Pawnee tribes are not much addicted to ardent spirits. They live like all Indians west of the Mississippi, a partially roving life. They have intermarried with the Osages. They do not marry those to whom they are remotely related. Widows mourn a year, clothed during that time in a negligent and ragged dress. At the expiration of this period the husband's brother generally takes the widow as one of his wives. Children are never punished. It is thought to be a good sign when they are wilful and headstrong. "He will make a good warrior," say the parents, "he will not be controlled." In travelling, infants are lashed to a board, as in many tribes. The attachments of paternity are strong among the Kanzas, and young men, who, in childhood, have been coupled out as friends, are little less attached than brothers. The men cut their hair except a small lock on the crown, that if they are vanquished in battle the enemy may have the advantage of the scalp. Many of these Indians are tattooed. In summer they carry fans of turkey feathers. The Kaskaias, Shiennes, &c. have few settled villages, but rove about for subsistence, living in lodges of skins. These are of a conical shape. The Osages live on the Osage River, and pay some attention to agriculture. They are well formed and tall, though they believe that their founder was a snail, who inter-



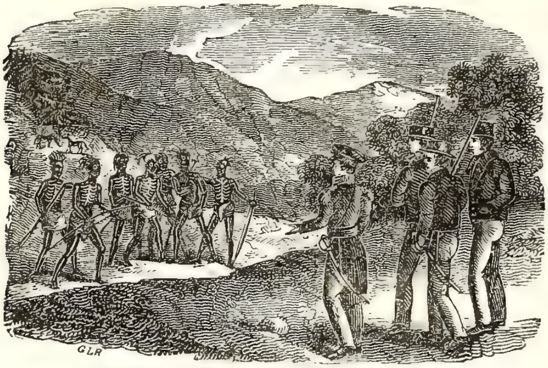
Indian Tent of Skins.

no reply; he then placed his mouth close to her ear, and vociferated, "I am hungry, give me some food." The wife thought she heard a buzzing in her ear, and remarked it to one who sat near her. The enraged husband now summoning all his strength, struck her a blow upon her forehead. She only complained of feeling a shooting pain there, such as is not unfrequent, and raising her hand to her head, remarked, "I feel a slight headache."

Foiled thus in every attempt to make himself known, the warrior chief began to reflect upon what he had heard in his youth, that the spirit was sometimes permitted to leave the body and wander about. He reflected that possibly his body may have remained upon the field of battle, while his spirit only accompanied his returning friends. He determined to return upon their track, although it was four days' journey to the place. He accordingly began his journey immediately. For three days he pursued his way without meeting anything uncommon, but on the fourth, towards evening, as he came to the skirts of the battle-field, he saw a fire in the path before him. He walked to one side to avoid stepping into it, but the fire also had moved its position, and was still before him. He then went in another direction, but the mysterious fire still crossed his path, and seemed to bar his entrance to the scene of conflict. In short, whichever way he took, the fire was still before him; no expedient seemed capable of eluding it. "Thou demon," he exclaimed at length, "why dost thou bar my approach to the field of battle? Knowest thou not that I am a spirit also, and that I seek again to enter my body? Or dost thou presume that I shall return without effecting my object? Know that I have never been defeated by the enemies of my nation, and will not be defeated by thee?" So saying, he made a sudden effort and jumped through the flame. In this exertion he awoke from his trance, having lain eight days on the field of battle. He found himself sitting on the ground, with his back supported by a tree, and his bow leaning against his shoulder, having all his warlike dress and implements upon his body, the same as they had been left by his friends. He looked up and beheld a large war eagle sitting in the tree above his head. He immediately recognised this bird to be the same he had dreamt of in his youth, and which he had selected as his guardian spirit, or personal maneto. This bird had carefully watched his body, and prevented other ravenous birds from devouring it. He got up and stood some time upon his feet; but he found himself weak and much exhausted. The blood upon his wound had staunched itself, and he now bound it up. He possessed the knowledge of such roots as were efficacious for its cure. These he carefully sought in the woods. Some of them he pounded between stones, and applied externally; others he chewed and swallowed. In a short time he found himself so much recovered as to be able to commence his journey; but he suffered greatly from hunger, not being able to see any large animals. With his bow and arrows, however, he killed small birds during the day, which he roasted before the fire at night. In this way he sustained himself until he came to a water that separated his wife and friends from him. He then gave that peculiar whoop which indicates the safe return of an absent friend. The signal was instantly known, and a canoe despatched to bring him across. But while this canoe was absent, conjecture was exhausting itself in designating the unknown person who had given this friendly intimation of his approach. All who had been of the war party had returned, except those who were killed on the field. It might be some neighboring hunter. It might be some deception of their enemies. It was rash to send a canoe without knowing that any of their friends were absent. In the height of this conjecture, the warrior chief was landed amidst the shouts of his friends and relations, who thronged from every lodge to welcome their faithful leader. When the first wild bursts of wonder and joy had subsided, and some degree of quiet was restored in the village, he related to his people the account of his adventures, which has been given. He then concluded his narration by telling them that it is pleasing to the spirit of a deceased person to have a fire built upon his grave for four nights after his interment: that it is four days' journey to the land appointed for the residence of the spirit: that in its journey thither the spirit stood in need of a fire every night at the place of its encampment: and that if the friends kindled this funeral fire upon the place where the body was deposited, the spirit had the benefit of its light and warmth in its sojourning. If they neglected this rite the spirit would itself be subjected to the irksome task of building its own fires at night.

married with a beaver's daughter. These Indians therefore never killed the beaver, till the traders offered for the skins a sum too great for Osage piety.

The remnant of the Six Nations that now exist in the United States, and a few other tribes, live in reservations in New York. They live principally by agriculture, and raise considerable quantities of corn. They are surrounded by white population, and mutual depredations are the consequence. Like the most of the other tribes in the United States, they have some advantages of religious and other instruction without much availing themselves of it. There are faithful resident missionaries. Most of the Six Nations profess Christianity. They are gradually becoming more industrious. Of the other tribes within the limits of the States we have room for no other notice than the brief accounts under the sectional divisions. The Indians along the Missouri are well formed, and many of them have aquiline noses. Among the Omawhaws, the husband who marries the eldest daughter marries all her sisters, and takes them home when they become of age. Children, as in some other tribes, are weaned at about three years of age ; and in this the mother is assisted by the ridicule of visiters. Suicides sometimes take place. There is a peculiar custom that the husband holds no communication with his wife's mother or father. They never speak to each other, but all communication is made through other persons. These Indians are divided into bands, to each of which some kind of food is interdicted. To one a swan, to another a bison's head, &c. They take great pleasure in fabulous legends, and seem to believe that at a remote period all animals had speech and went to war, armed with the weapons of men. The next natives up the Missouri, are the Yanktons, Puncahs, and three tribes of Tetons, which are Sioux, or Dahcotahs. The Rickarees were colonies of the Pawnees. They are well formed, and the females are handsome. They are hospitable and generous. The lodges are 30 or 40 feet in length, of a circular or octagonal shape. These Indians are not quarrelsome, though they are well armed with muskets. They cultivate beans, maize, melons, squashes, and a kind of tobacco peculiar to their district. Like all other Indians, they are much given to the use of tobacco, principally in smoking. The Mandans resided higher up the river, but they have lately been exterminated by the ravages of the small pox. Like some of the other tribes, they used to cut off the joints of a finger on the loss of a friend. The Minnetaries are a part of the stock of the Fall Indians. They are called also *Grosventres* or Bigbellies. They have annually a great "medicine," or religious dance, in which they inflict painful wounds upon themselves. One of them thrust a knife through the muscles of his shoulder, through which he tied the reins of his horse, and thus conducting the thirsty animal to the water, he turned him back without having suffered him to drink, and without raising his own hands. Other means of torture still more severe are practised. The Shoshonees live chiefly in the Rocky Mountains and the plains southward. They are a tribe of the Snake Indians, and are represented as gentle and cheerful. They were the best of the Indians seen by Lewis and Clarke. Polygamy is common, but the women, as with the Mandans and Rickarees, seem to be held in some respect. This tribe are not well formed. The feet are thick and flat, and the legs crooked. Besides the common articles of dress, they wear a rich tippet of sea-otter skins.



Meeting of Whites with Blackfoot Indians.

The Blackfoot Indians, living near the Rocky Mountains, are fierce and warlike. They are constantly committing depredations or murders upon their neighbors, who are less efficiently armed than themselves. They are far north, and live in constant warfare with the Flatheads, and other tribes, that reside about the mountains. The cause of contention is the hunting of the buffalo in the plains. The Assiniboins live partly in the British territories, and partly in the possessions of the United States.

With the exception of the Esquimaux, the Indians have the same physical characteristics. The bronze color, straight black hair, high cheek bones, and erect form, are common to all. There is, however, difference of stature and physiognomy. The Osages are very tall, and the Shoshonees are below the middle stature. To a white all Indians may indeed seem alike, bu a Dahcotah, a Chippeway, a Winnebago, &c. can readily distinguish the tribe by the individual. The Indians in the territories of the United States are divided into several great families. The Algonquin or Chippeway race is widely spread ; all the tribes of New England had identity of language and customs with this. The Delaware race, or the Lenni-Lenape, the Knisteneaux or Crees, and the Sacs and Foxes are of the same great family. The Iroquois or Six Nations, Wyandots, &c., form a distinct race. The Sioux or Dahcotah is another great Indian race. Their language is radically different from that of the Algonquin family. The branches of this tribe are the Winnebagoes, Otoes, Ioways, Missouries, Assiniboins, Omawhaws, Kansas, and Osages. The Assiniboins are sometimes called the Stone Indians, and they have but recently seceded from the Dahcotah stock. All these tribes speak dialects of the Dahcotah tongue.

The Winnebagoes are very jealous of the whites, and have little intercourse with them. They permit no persons to come among them without understanding their motives. They are remarkably provident, and cultivate corn, potatoes, pumpkins, squashes, and beans. Their number is considerably on the increase.

There are, besides these tribes, others of less note, on this side the Rocky Mountains, but they are not powerful or peculiar. In all there are perhaps several hundred tribes of separate names. The Indian population is decreasing, as the wild animals diminish. The small pox has at times heretofore, as well as recently, made extensive ravages ; and want and exposure carry off many of the natives. They often live in a state of profusion, or of want, dependent on accident for food, and many of them yearly die of famine. In times of scarcity the old and helpless are left to perish. The articles of dress are nearly the same, though there is considerable difference in shape. They consist in moccasins, leggins, trowsers, cloth, or dressed skin, tied around the middle, and a blanket, when it can be had. In winter, furs constitute a part of the dress ; and near the trading ports it is of various cloths.

Indian Warrior.

In describing the Indian manners and customs, the nature of the subject precludes minute accuracy. Generally speaking, all the tribes between the Alleghanies and the Rocky Mountains are active and supple, but not so strong as the whites. They live, many of them, in a state of warfare. Questions of war, as all others of general importance, are decided in assemblies of the tribe, which are held with a gravity and deliberation unknown in other political assemblies. The most perfect attention is paid to a member while he is speaking, and a difference of opinion is calmly expressed. The chiefs are generally chosen from their ascendency in war or council. The Indian speeches contain a natural and figurative eloquence that has been much admired. Even their diplomacy is figurative, and at the close of a war, when reconciled, they " bury the hatchet and plant the tree of peace." In their treaties and talks with the agents of the United States, the President is styled, with somewhat too great a license of speech, their " Great Father."

Indian in full Dress.

The gravity of the Indians is imperturbable, and they are equally distinguished for taciturnity. They are seldom gay. Men are ashamed to express emotion, but women among them give way, on the loss of friends, to every expression of grief, tearing their hair, &c. Hospitality is ever to be found in huts and tents, and it is one of the most distinguishing traits of the Indians. They carry it, indeed, somewhat further than propriety warrants. It offends them if the stranger refuses to partake of the food they prepare for him. Though the Indians have much hospitality for a stranger, they have little mercy for a captive. Some few are adopted in tribes, but many are tortured, and killed with every device of barbarity. The religion of the tribes generally includes a belief in a Supreme Being, and some notion of another existence hereafter. They believe also in sorcery, and the "medicine men" or jugglers and priests have a consideration little inferior to that of the chiefs. The most general diseases seem to be rheumatic, and they are principally cured by the vapor bath, in which the Indians indulge both for health and pleasure. These baths are very small inclosures of clay or wickerwork, in which water is poured upon hot stones. Charms and incantations are generally resorted to as means of curing disease. The courtships, marriages, and divorces of the Indians are attended with little ceremony. Divorces are generally at the pleasure of each party, and courtships are mostly managed by friends. The various tribes are governed by their own customs. Murder is generally punished by the friends of the deceased, and adultery by the husband. The Indians have been instructed in many vices by the white traders, who are too often men without character or morals. From them, many get the means of intoxication, which they swallow to the most riotous and beastly excess. They have, in this respect, no command over themselves. In gaming, also, they will adventure to their last earthly possession. Many of the tribes have horses, and those of the north make much use of dogs, which are made to draw, as among the Esquimaux. The United States pay large annuities to various tribes, principally for purchases of land. There are Indian agents at various points, missionaries, schools, and mechanics for the use of the Indians. The aboriginal inhabitants are, however, gradually receding westward ; and one of their number has truly said, that when a white man puts down his foot, he never takes it up again.

The Indian languages have not the various forms that are found in the eastern hemisphere ; a uniform system seems to pervade them all. The American languages are richer in words, and more regular in their forms, than those of other countries. The most curious part of the Indian language is the process of compounding words. The number of words can thus be increased to any extent. A multitude of ideas are combined by the process ; for instance, says Mr. Duponceau, " when a Delaware woman is playing with a little dog or cat, or some other young animal, she will often say to it, *Kuligatschis*, which I would translate into English, — *Give me your pretty little paw ;* or, *What a pretty little paw you have !* This word is compounded thus ; *k* is the inseparable pronoun of the second person, and may be rendered *thou* or *thy*, according to the context ; *uli* (pronounced *oolee*), is part of the word *wulit*, which signifies *handsome*, or *pretty ;* it has also other meanings, which need not be here specified ; *gat* is part of the word *wichgat*, which signifies a *leg*, or *paw ; schis* (pronounced *sheess*), is a diminutive termination, and conveys the idea of *littleness :* thus, in one word, the Indian woman says, *thy pretty little paw !* and, according to the gesture which she makes, either calls upon it to present its foot, or simply expresses her fondling admiration. In the same manner, *pilape* (a youth) is formed from *pilsit* (chaste, innocent) and *lenape* (a man). It is difficult to find a more elegant combination of ideas, in a single word, of any existing idiom. I do not know of any language, out of this part of the world, in which words are compounded in this manner. The process consists in putting together portions of different words, so as to awaken, at the same time, in the mind of the hearer the various ideas which they separately express. But this is not the only manner in which the American Indians combine their ideas into words.

" In the Cherokee language, fourteen different words are used to express the action of washing ·

Kutuwo,	I am washing myself, as in a river ;	*Takosula*,	I am washing my feet ;
Kulestula,	my head ;	*Tatseyasula*,	another's feet ;
Tsestula,	another person's head ;	*Takungkala*,	my clothes ;
Kukusquo,	my face ;	*Tatseyungkela*,	another's clothes ;
Tsekusquo,	another's face ;	*Takŭteya*,	dishes, etc. ;
Takasula,	my hands ;	*Tseyuwa*,	a child ;
Tatseyasula,	another's hands ;	*Kowela*,	meat.

" The word *old* in English has a general sense ; but among the Delawares the expression is varied according to the object which it describes, as *kikey* (old, advanced in years), applied to things animate ; *chowiey* or *chowiyey* (old by use, wearing), &c. ; *kikeyilenno* (an old man, advanced in years) ; *kikechum* (an old one of the brute kind) ; *chowigawan* (an old house), from *wikwam* or *wigwam ; chomaxen* (old shoes), from *maxen* (moccasins or shoes) ; they say also, *pigihilleu* (torn by long use or wearing) ; *logihilleu* (fallen to pieces), &c. The same remarks may be made on the word *young*, &c."

It now remains to describe briefly the Indians of the Rocky Mountains and the country beyond. There are some general characteristics that run through them all. Generally they are not so well formed as the Indians heretofore described, and they study various and successful methods of creating artificial deformity. The people of no civilized country ever studied so much to appear beautiful, as some of these Indians to look hideous. One of these practices, which runs through several of the tribes, is that of flattening the head. This is done by a flat piece of bark tied in infancy on the forehead. The forehead, when the

Indians of the Northwest Coast.

child grows up, is so flattened that it is in a straight line with the nose, and the skull comes to a point only an inch or two through. While this pressure is on it, the eyes are said to stand out of the head like those of a mouse squeezed to death in a trap. The division of the nostrils among several tribes, is pierced, and feathers or ornaments of wood and shell are worn in them. On the coast the lip is pierced, in such a manner that the orifice looks like a second mouth. A large piece of wood or shell is worn in it. The skin is sometimes tattooed and the ears are slit. There are several languages, some of which pervade many tribes. In some, the sounds are so guttural that they resemble the clucking of a fowl.

The general diseases are rheumatism, consumption, and ophthalmia. Few have good eyes, and the aged are generally blind. The great remedy in the eastern parts, is the vapor bath. The patient from this, plunges in cold water. In some tribes the teeth decay soon. The general food is fish, roots, berries, and the products of the chase. The dress is a robe of fur, or on the coast, of European manufactures. The tribes have little knowledge of spirituous liquors. Generally these Indians are thieves and pilferers. They are treacherous and revengeful. Some of the principal tribes are the Shoshonees, or Snake Indians; the Chopunnish, which has several large branches under different names; there are several other bands of the Multnoma tribe. Other tribes are the Sokulk, the Chinampum, Wallahwallah, Pishquitpah, Wahowpum, Eneshure, Eskeloot, Chilluckitequaw, Shahala, Wappatoo, Cathlamah, Skilloot, Chinnook, Clatsop, Killamuck, Wakash, and others. Of these the Chopunnish and Wallahwallah are represented as gentle and hospitable, and in these particulars there is diversity of character among the tribes. The treatment of females varies among different tribes. In some they are considered equals and treated accordingly; in others they are patient slaves to their husbands. The Spokans are honest and friendly, indulgent fathers, but despotic husbands. The people of Nootka Sound, are hardy, cruel, and warlike. But it would be tedious farther to enumerate the individual differences among tribes that have a general resemblance.

Indians in the United States.

1. *Indians East of the Mississippi.*

New York Indians, (Senecas, &c.),	4,000
Chippeways, (Michigan and Wisconsin),	8,000
Ottawas, Chippeways, and Pottawatamies,	6,500
Wyandots, (Ohio),	600
Menomonies, (Wisconsin),	4,000
Seminoles, (Florida),	2,000
	25,100

2. *Between the Mississippi and Missouri.*

Winnebagoes,	4,500
Sacs and Foxes,	4,500
Ioways,	1,200
Sioux,	25,000
Assiniboins,	3,000
Pottawatamies,	2,000

3. *In the Indian Territory.*

Choctaws,	18,000
Creeks,	25,000
Cherokees,	26,000
Seminoles,	3,000
Chickasaws,	5,000
Delawares,	1,000
Osages,	5,000
Kansas,	1,500
Puncahs,	800
Kickapoos,	600
Senecas and Shawnees,	1,800
Weas, Peorias, Kaskaskias, &c.,	600
Omawhaws,	1,200
Otoes and Missouries,	1,500

4. *Indians beyond the States and Territories.*

Pawnees,	6,000
Minnetaries,	2,500
Rickarees,	3,000
Shiennes,	2,000
Crows,	4,500
Blackfeet,	25,000
Kiowas,	1,500
Camanches,	5,000
Tribes West of Rocky Mountains,	50,000

28. *History.* The settlement and early history of each State are laid before the reader in the separate chapters. The several colonies were governed by the parent country nearly upon the same system. The attempt of the British government to tax the colonies without their consent, sowed the first seeds of that disaffection which subsequently ripened into open revolt.

In 1765 a stamp act was imposed upon the colonies, but such unequivocal marks of disapprobation were expressed throughout the country, that it was withdrawn the next year. The attempt was soon after renewed in the shape of a duty upon tea, and a number of ships laden with the article were despatched to America. The colonists were bent upon resistance to the principle of taxation, and resolved that the duties should not be levied. On the arrival of the tea at Boston, the people took possession of the ships, and threw the tea overboard. The British ministry attempted to punish the Bostonians, by shutting up their port and garrisoning the town with British troops. The exasperation of the colonists against the mother country increased ; a congress of delegates from the several colonies assembled at Philadelphia ; a determination to resist the encroachments of Britain was everywhere manifested. In this critical conjuncture, the rash precipitancy of the British commander at Boston, or his instructers in the cabinet, kindled at once the flame of open hostility, which blazed till the British dominion over her ancient colonies had for ever passed away.

On the 19th of April, 1775, the British general detached a body of troops to destroy some military stores at Concord, a few miles from Boston. The alarm was given throughout the neighborhood, and at Lexington the British were met by a small body of rustics, hastily collected, and armed with such weapons as each man could seize upon in the emergency. Here the first blood was shed. The Americans awaited the attack of the British, and a short skirmish ensued, when the Americans yielded to the superiority of numbers and retreated. The British proceeded to Concord, and effected the destruction of the stores ; but in the mean time the inhabitants had collected and began to annoy them by a scattering fire from behind the walls and houses. They commenced a retreat, but at every step the number of their assailants increased ; a running fire was poured in upon them from behind stone walls and fences, and their retreat would have become a rout, but for the timely arrival of a reinforcement from Boston. With this assistance they were enabled to reach Boston in safety, after suffering a heavy loss.

Battle of Lexington.

The news of this battle ran through the country like an electric shock. Throughout the New England States the people rushed to arms ; in three days the roads were covered with people marching upon Boston, and at the end of a week the town was invested by an army of 20,000 men. From the heights of the capital, the British commander might espy a line of watch-fires stretching completely around him on the land side, and shutting him up within the narrow limits of the peninsula of Boston.

This great body of men, who thus rushed from their farms and firesides to blockade the capital, consisted of a heterogeneous mass, ill-armed, ignorant of tactics, unused to discipline, and untried in war ; but impressed with the justice of their cause, and full of ardor to avenge the slaughter of their countrymen. The British soldiers, trained to discipline and skill, and renowned for bravery, looked with scorn upon the Americans ; their contempt for their new enemies derived additional strength from the language of the ministerial party in Parliament, who asserted, with the coolest arrogance, that the Americans were a pack of cowards, that would never dare face a British soldier in the field. The correctness of this estimation was soon put to the test. On the night of the 16th of June, the Americans took possession of the heights of Charlestown, and a body of 1,500 threw up an entrenchment on the southern part of Bunker's Hill, commanding the northern part of Boston, and a great portion of the harbor. The dawn of day discovered this to the British, and a heavy cannonade was begun upon the works from the British ships and batteries. This producing no effect, the British general despatched a body of 3,000 men, comprising the flower of his army, to carry the heights by storm. About noon this army crossed the river in boats, and formed for the attack. The heights of Boston, the house-tops and steeples were crowded with gazing multitudes awaiting with breathless anxiety the issue of the contest. Charlestown was now set on fire by the British, and its wide mass of wooden houses were quickly wrapped in one great flame, while the British, in order of battle, marched slowly up the height, supported by a heavy fire of their artillery. The Americans awaited their approach, till within point blank shot, when they at once poured in upon them so deadly a fire, that whole ranks were mowed down, the line of the British became disordered, and they retreated hastily to the shore. They rallied and returned to the charge, but again a most furious and destructive fire forced them to retreat. Such was the carnage, that nearly every officer around General Howe, the British commander, was killed, and the General was left almost alone on the side of the hill. At this critical conjuncture a reinforcement arrived from Boston, and a third time the British advanced to the attack, the soldiers being driven to the charge at the sword's point, by their officers. The ammunition of the Americans was now exhausted, yet they received the assailants with the butt-ends of their muskets; after a short conflict they retreated, and left the British in possession of the heights. More than one-third of the British were either killed or wounded.

This obstinate and bloody struggle was equivalent in its effects to a decisive victory in favor of the Americans. The firmness and conduct which their raw levies had exhibited against regular troops, gave them the highest confidence. No further attempt was made by the British to penetrate into the country, and they remained as closely blockaded as before. All hope of reconciliation was now cast aside. The Congress organized a body of forces for the defence of the country, and placed Washington at the head. The new general pressed the siege of Boston, and in the spring of 1776 drove the British from the place.

On the 4th of July, 1776, Congress declared the American States free and independent. In the summer of the same year, the British, with a powerful army, attacked New York. Washington attempted to defend it, but the disastrous battle of Long Island threw the c ty into their power. He retreated into New Jersey, and the end of the year beheld him with a handful of half-clad, starving men, retreating before a victorious foe. The fate of the country appeared to be decided, but the fortitude and enterprise of Washington turned the tide of war against the enemy. The victories of Trenton and Princeton revived the drooping spirits of the Americans, gave them confidence in their leader, and brought an efficient army under his banners.

In 1777, Philadelphia fell into the hands of the British, and an army of 10,000 men under General Burgoyne invaded the country from Canada. The march of this General was, at first, highly successful; all the strong posts on his route were captured, and a panic spread through the country at his approach. But at Bennington the militia cut off a detachment of his army, and this victory inspirited the people; bodies of militia gathered around him; the battle of Stillwater arrested his march; his retreat was cut off; a fruitless attempt was made by the British from New York to relieve him, and he surrendered his army to General Gates, at Saratoga, October 17th, 1777.

By the help of this important success, Franklin negociated a treaty of alliance with France, in February, 1778. The British evacuated Philadelphia the same year. In 1779, the seat of active war was transferred to the Southern States. The Carolinas fell into the hands of the British, and various battles were fought with alternate success. In 1781, Lord Cornwallis with an army of 10,000 men, after traversing Carolina and Virginia, took post at Yorktown, on the Chesapeake, where he was besieged by the Americans and French under Washington, and at length surrendered on the 10th of October, 1781.

This event was decisive as to the fate of the war. The British government had now lost all hopes of reducing the Americans to obedience, and in 1783, Great Britain by a treaty acknowledged the independence of the States.

After the restoration of peace, the States remained as they had been during the war, united by a slight confederation, without any efficient general government. But this state of things not being found conducive to the prosperity of the country at large, a new form of government was resolved upon. A convention from the several States assembled, and after much deliberation, formed the present constitution, which was established and went into operation in 1789. Since this period the country has seen no change in its political institutions. New territories have been acquired, wars and factions have disturbed our domestic tranquillity, but the union of the States has, to the present moment, survived every struggle.

Population of each State according to five Official Enumerations.

	1790.		1800.		1810.		1820.		1830.	
	Total.	Slaves.	Total.	Slaves.	Total.	Slaves.	Total.	Slaves.	Total.	Slaves.
Maine	96,540	. .	151,719	. .	228,705	. .	298,335	. .	399,955	. .
New Hampshire	141,899	158	183,762	8	214,360	. .	244,161	. .	269,328	. .
Vermont	85,416	17	154,465	. .	217,713	. .	235.764	. .	280,652	. .
Massachusetts	378,717	. .	423,245	. .	472,040	. .	523,287	. .	610,408	. .
Rhode Island	69,110	952	69,122	381	77,031	103	83,059	48	97,199	17
Connecticut	238,141	2,759	251,002	951	262,042	310	275,202	97	297,665	25
New York	340,120	21,324	586,786	20.343	959 949	15.017	1,372,812	10,088	1,918 608	75
New Jersey	184,139	11,423	211,949	12,422	249.555	10,851	277,575	7,557	320,823	2,254
Pennsylvania	434,373	3,737	602,365	1,706	810.091	795	1,049,458	211	1,348,233	403
Delaware	59,096	8,887	64,273	6.153	72,674	4,177	72,749	4,509	76,748	3,292
Maryland	319,728	103,036	341,548	105,635	380 546	111,502	407,350	107,398	447 040	102,994
Virginia	748,308	293,427	880,200	345,796	974,622	392,518	1,065 379	425.153	1,211 405	469.757
North Carolina	393,751	100,572	478,103	133,296	555.500	168,824	638,829	205 017	737,987	245,601
South Carolina	249,073	107,094	345,591	146,151	415,115	196,365	502,741	258 475	581,185	315,401
Georgia	82,548	29,264	162,101	59,404	252,433	105,218	340,987	149.656	516,823	217,531
Alabama	. .	. .	8,850	3,489	40,352	17,088	127,901	41,879	309,527	117,549
Mississippi	. .	. .					75,448	32,814	136 621	65,659
Louisiana	. .	. .	. .	. .	76,556	34,660	153,407	69,064	215,739	109 588
Tennessee	35,791	3,417	105,602	13,584	261,727	44 535	422,813	80 107	681,904	141,603
Kentucky	73,077	11,830	220,955	40,343	406 511	80,561	564,317	126,732	687 917	165,213
Ohio	. .	. .	45,365	. .	230,760	. .	581,434	. .	937,903	. .
Indiana	. .	. .	4,875	135	24,520	237	147,178	190	343 031	. .
Illinois	. .	. .	. .	. .	12,282	168	55,211	917	157,455	. .
Missouri	. .	. .	. .	. .	20.845	3,011	66,586	10,222	140 445	25.081
District of Columbia	. .	. .	14,093	3,244	24,023	5,395	33,039	6,377	39,834	6,119
Florida Territory	. .	. .	. .	. .	. .	. .	. .	. .	34,730	15,501
Michigan Territory	. .	. .	. .	. .	4,762	24	8.896	. .	36 629	. .
Arkansas Territory	. .	. .	. .	. .	. .	. .	14,273	1,617	30,388	4,576
Totals	3,929,827	679,897	5,305,925	893,041	7,239,814	1,191,364	9,638,131	1,538,038	12,866,020	2,009,043

Imports. Exports. Consumption of Foreign Produce.

	Imports.	Exports.	Exports of Home Produce.	Exports of Foreign Mer'dise.	Consumption.
1790,	$ 23,000,000	$ 20,205,156	$ 19,666,000	$ 300,000	$ 23,500,000
1800,	91,252,768	70,971,780	31,840,903	49,130,877	44,121,891
1810,	85,400,000	66,757,970	42,366,675	24,391,295	64,008,705
1820,	74,450,000	69,691,669	51,683,640	18,008,029	56,441,971
1825,	96,340,075	99,535,388	66,944,745	32,590,643	63,749,432
1830,	70,876,920	73,840,508	59,462,029	14,387,479	56,499,441
1835,	149,895,742	121,693,577	101,189,082	20,504,495	129,391,247
1838.	113,717,404	108,486,616	96,033,821	12,452,795	101,264,609

Tonnage of the United States at several Periods.

	Registered.	Enrolled and Licensed.			Total Tonnage.
		Coasting.	Fisheries.	Total.	
1789,	123,893	68,607	9,062	77,669	201,562
1800,	669,921	272,492	30,079	302,571	972,492
1830,	576,475	516,978	98,323	615,301	1,191,776
1834,	750,026	744,198	111,925	856,123	1,606,149
1836,	897,774	873,023	111,305	984,328	1,882,102
1838,	822,591	910,003	131,102	1,041,105	1,994,798

Navigation in 1838.

Value of Domestic Articles.	
Exported in American vessels,	$ 79,855,599
" in Foreign vessels,	16,178,222
Value of Foreign Articles.	
Exported in American vessels,	9,964,200
" in Foreign vessels,	2,488,595
	Tons.
American shipping entered,	1,302,974
" cleared,	1,408,761
Foreign shipping entered,	592,110
" cleared,	604,166

Value of Exports of Home Produce for several years.

	1830. Dolls.	1832. Dolls.	1834. Dolls.	1836. Dolls.	1838. Dolls.
Produce of the SEA, (Fish, Oil,)	1,725,270	2,558,538	2,071,493	2,666,058	3,175,576
" of the FOREST, (Furs, Ashes, Naval Stores, Lumber,)	4,192,047	4,347,794	4,457,997	5,361,740	5,200,499
" of AGRICULTURE, (Beef, Pork, Wheat, Cotton, Tobacco,)	46,977,332	49,416,183	67,380,787	91,625,924	78,194,437
" of MANUFACTURES,	6,258,131	6,461,774	6,648,393	6,453,266	8,875,538

Value of some leading Articles of Export in 1838.

Cotton,	$ 61,556,811
Tobacco,	7,392,029
Rice,	1,721,819
Flour,	3,603,299
Fish,	819,003
Furs,	636,945
Lumber,	3,116,196
Manufactures,	8,875,538

Value of some leading Articles Imported in 1838.

Cotton goods,	$ 6,599,330
Woolen goods,	6,967,530
Silk goods,	9,812,338
Linen,	3,583,540
Iron and Steel,	7,418,504
Sugar,	7,586,825
Teas,	3,497,156
Wines,	2,318,202
Molasses,	3,865,285
Coffee,	7,640,217
Salt,	1,028,418

The following exhibits the total value of the Imports and Exports of the States which were most deeply engaged in the foreign trade during the year 1838:

	Imports into.	Exports from.
Massachusetts,	$ 13,300,925	$ 9,104,862
New York,	68,453,206	23,008,471
Pennsylvania,	9,360,731	3,477,151
Maryland,	5,701,869	4,524,575
Virginia,	577,142	3,986,228
South Carolina,	2,318,791	11,042,070
Georgia,	776,068	8,803,830
Alabama,	524,548	9,688,244
Louisiana,	9,496,808	31,502,248

The following table exhibits the relative importance of our trade during 1838, with the following countries

	Imports from.	Exports to.
Great Britain and dependencies,	$49,051,181	$58,843,392
France and dependencies,	18,087,149	16,252,413
Spain and dependencies,	15,971,394	7,684,006
Netherlands and dependencies,	2,436,166	3,772,206
China, ...	4,764,536	1,698,433
Mexico, . .	3,500,709	2,164,097
Texas, ...	165,718	1,247,880

Estimated Annual Value of Manufactures (1839–40).

Aggregate Value, . . .	$ 350,000,000
Cotton Manufactures, . .	50,000,000
Woolen " . . .	70,000,000
Leather " . . .	40,000,000
Linen, ...	6,000,000
Hats, Caps, &c. . . .	15,000,000
Glass, ...	5,000,000
Paper, ...	6,000,000
Soap and Candles, . . .	10,000,000
Spirits, ...	5,000,000
Cabinet ware, . . .	10,000,000
Iron, ...	50,000,000

Cotton Plant.

Cotton Crop. The entire growth of *Cotton* in the world, is 1,000,000,000 pounds. Of this 550 million are supposed to be grown in the United States, — 30 in Brazil,—8 in the West Indies,—27 in Egypt,—36 in the west of Africa, —190 in the west of Asia,—35 in Mexico and South America, except Brazil, — and 14 elsewhere.

Thus, at 10 cents per pound, a price below which it has rarely ever fallen, this crop is worth $ 100,000,000. For the last 50 years, however, the value (though often fluctuating suddenly and widely) has averaged 19½. At this price, the present growth of the world is worth $ 192,500,000.

Of this, about 350 millions of pounds are consumed and manufactured in England, — about 150 million in the United States, — 80 in France, —250 in China and India, — 25 in South America and Mexico, including Brazil, — 35 in Germany,— 45 in Turkey and Africa,— 10 in Spain, 20 in Prussia, — and the remainder elsewhere.

The value of cotton manufactures in England, is believed to be annually about 170,000,000 of dollars,—in France, 70,000,000, — in the United States, 50,000,000.

The capital employed in manufacturing by machinery, is estimated in England, at 200,000,000 of dollars,—in France at 120,000,000,— in the United States, at 110,000,000.

The consumption in manufactures of raw cotton in all Europe, in 1803, was estimated at only 60,000,000 of pounds. The whole consumption in Europe, in 1830, was about 387,000,000 of pounds. In 1838, it is believed to be nearly 500,000,000 of pounds.

South Carolina and Georgia were the first States in the Union to grow cotton to any considerable extent. In 1791, 2,000,000 of pounds were grown in the Union, — 1½ million of which grew in South Carolina, and 1½ million in Georgia.

In 1801, 40,000,000 was the crop of the United States, — of which 20 million grew in South Carolina, 10 in Georgia, 5 in Virginia, 4 in North Carolina, and 1 in Tennessee.

In 1811, the crop of the United States had reached 80 million, — of which, 40 grew in South Carolina, 20 in Georgia, 8 in Virginia, 7 in North Carolina, 3 in Tennessee, and 2 in Louisiana.

In 1821, 170,000,000 of pounds were growing in the Union, — as follows: 50 million in South Carolina, 45 in Georgia, 20 in Tennessee, 20 in Alabama, 12 in Virginia, 10 in North Carolina 10 in Louisiana, and 10 in Mississippi.

In 1828, the whole crop of the Union was 348½ millions. Of this, Georgia grew 75 million, South Carolina 70, Tennessee, 45, Alabama 45, Louisiana 38, Mississippi 20, Virginia 25, North Carolina 18, Florida 2, and Arkansas 1½ of a million.

In 1833, the crop of the Union had increased to 437¾ millions. Of this, 88 million grew in Georgia, 73 in South Carolina, 70 in Mississippi, 65 in Alabama, 55 in Louisiana, 50 in Tennessee, 15 in Florida, 13 in Virginia, 10 in North Carolina, and three quarters in Arkansas.

The next year (1834) the crop had increased to 475½ millions, and was grown as follows: 85 in Mississippi, 85 in Alabama, 75 in Georgia, 65½ in South Carolina, 62 in Louisiana, 45 in Tennessee, 20 in Florida, 18 in Virginia, 9½ in North Carolina, and one half in Arkansas.

Thus it will be seen, from 1791 to 1826, South Carolina was the most abundant cotton growing State in the Union. In 1826 Georgia took the lead, and held it till 1834, when Alabama and Mississippi took the front rank. At this time, Mississippi is perhaps the most extensive cotton growing State in the Union. South Carolina and Alabama are next. North Alabama is beginning to deteriorate as a cotton country: while the worn lands in Middle Tennessee are thought to improve for this culture, — maturity, the vital desideratum, not being so easily allowed in the rank luxuriance of the fresher soils.

When it is remembered, that the *first cotton plant in the United States*, was raised in 1787, surely our readers will find reason for surprise at the wonderful increase that has accrued in a little more than 50 years! Bold, indeed, must be the man, who would venture to predict the wealth, greatness, and power, likely to become our national attributes, through the agency of Cotton.

Revenue of the United States.

	Total.	Customs.	Internal Revenue and Direct Taxes.	Lands.	Loans.
1791, . .	10,210,026	4,399,473			5,791,112
1800, .	12,451,184	9,080,932	1,552,620	443	5,074,646
1810, . .	12,144,206	8,583,309		696,549	2,759,992
1815, .	50,961,237	7,282,942	6,840,762	1,287,959	35,264,321
1820, . .	20,881,493	15,005,612		1,635,871	3,040,824
1830, . . .	24,844,116	21,922,391		2,329,356	
1835, . .	35,430,087	19,391,310		14,757,601	
1838, . .					
1840, . .					

Expenditure of the United States.

	Civil list and Miscell.	Army, fortifications, &c.	Pensions.	Indian Affairs.	Navy.	Debt.	Total.
1791	1,083,397	632,804	175,813	27,000	570	5,287,949	7,207,539
1800	1,337,630	2,560,678	64,130	31	3,448,716	4,578,370	11,989,740
1810	1,101,144	2,294,324	83,744	177,625	1,654,244	8,008,904	13,319,986
1815	2,898,870	14,794,294	69,656	530,750	8,660,000	12,628,922	39,582,493
1820	2,592,022	2,630,392	3,208,376	315,750	4,387,990	8,628,494	21,763,025
1830	3,237,415	4,767,129	1,363,297	622,262	3,239,428	11,355,748	24,585,281
1835	3,721,261		9,420,312*		3,864,939	58,191	17,573,141
1838	8,782,891	5,248,610	1,593,935	2,382,770	6,844,362		32,260,910
1840							

* Including Pensions and Indian Affairs.

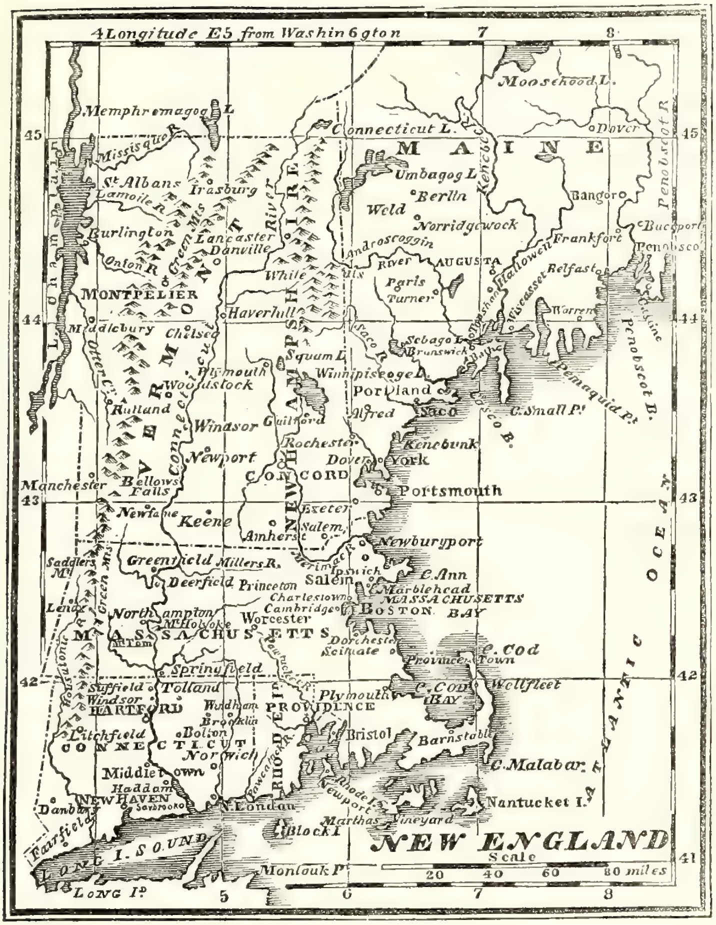
CHAPTER IV. NEW ENGLAND.

1. ***Boundaries and Extent.*** The six northeasternmost States are known by the general designation of the Eastern States, or New England. New England is bounded on the N. by Lower Canada ; E. by New Brunswick and the Atlantic Ocean ; S. by the Ocean and Long Island Sound, and W. by New York. It lies between 41° and 48° N. Lat., extending from 67° to 73° 48′ W. Lon., and comprising an area of 65,000 square miles, with a population of nearly 2,000,000.

New England States.

States.	*Capitals.*	*States.*	*Capitals.*
Maine,	Augusta.	Massachusetts,	Boston.
New Hampshire,	Concord.	Rhode Island,	Newport and Providence.
Vermont,	Montpelier.	Connecticut,	New Haven and Hartford.

2. *Mountains.* New England is distinguished for a surface of infinite variety. Mountains in considerable ranges, bold spurs and solitary eminences, rising from the New Haven bluffs of 400 feet to the lofty grandeur of Mount Washington, are everywhere dispersed. Beautiful swells of land in every form are innumerable. None of the mountains reaches the height of perpetual snow, and few are utterly sterile or inaccessible. The ancient forests still clothe their sides, but the industry of the cultivator is only necessary to render them productive. Their outline is in general somewhat rounding and tame, and, except in the loftier regions of the White Mountains, and perhaps some of the unexplored eminences of Maine, they exhibit none of those astounding precipices, deep and gloomy ravines, abrupt elevations, and towering peaks, which invest the Alps and Andes with sublimity.



3. *Valleys.* The only extensive valleys are on the banks of the large rivers. They are all of very unequal breadth, and consist of a flat alluvion now cleared of trees, and commonly of a fertile soil. The valley of the Connecticut, by far the most extensive in New England, is a tract of land extending from Long Island Sound to Hereford mountain in Canada, five miles beyond the 45th degree of latitude. In the largest sense, it is from 5 to 45 miles in width, and its surface is composed of a succession of hills, valleys, and plains. The interval lands, or bottoms, begin about 12 or 14 miles from the mouth of the river. These are formed by a long and continued alluvion. The tributary streams of the Connecticut run everywhere through a soft and rich soil, considerable quantities of which, particularly the lighter and finer particles, are from time to time washed into their channels, by occasional currents springing from rains and melted snows. Wherever the stream moves with an uniform current these particles are carried along with it; but where the current is materially checked, they are in greater or less quantities deposited. In this manner a shoal is formed at first, which afterwards rises into dry land; this is almost invariably of good quality, but those parts which are lowest are commonly the best, as being the most frequently overflowed, and therefore most enriched by successive deposits of slime. Of these parts, that division which is furthest down the river is the most productive, consisting of finer particles, and being more plentifully covered with this manure. In the spring these grounds are almost annually overflowed. In the months of March and April, the snows, which in the northern parts of New England are usually deep, and the rains, which at this time of the year are generally copious, raise the river from 15 to 20 feet, and extend the breadth of its waters in some places a mile and a half or two miles. Almost all the slime conveyed down the current at this season, is deposited on these lands, for here, principally, the water becomes quiescent, and permits the earthy particles to subside; this deposit is a rich manure; the lands dressed with it are preserved in their full strength, and being regularly enriched by the hand of nature, cannot but be highly valuable. Nor are these grounds less distinguished by their beauty. The form of most of them is elegant; a river passing through them, becomes, almost of course, winding; the earth of which they are composed is of a uniform texture, the impressions made by the stream upon the border are also nearly uniform; hence this border is almost universally a handsome arch, with a margin entirely neat, and very commonly ornamented with a fine fringe of shrubs and trees. Nor is the surface of these grounds less pleasing; their terraced forms and undulations are eminently handsome, and their universal fertility makes a cheerful impression on every eye. A great part of them is

formed into meadows which are more profitable, and everywhere more beautiful, than lands devoted to any other culture ; they are from 5 to 500 acres, and are everywhere covered with a verdure peculiarly rich and vivid. The vast fields also which are not in meadow, exhibit all the productions of the climate, interspersed in parallelograms, divided only by mathematical lines, and mingled in a charming confusion. In many places large and thrifty orchards, and everywhere forest trees standing singly, of great height and graceful figures, diversify the landscape. Through its whole extent this valley is almost a continual succession of delightful scenery. The Connecticut is one of the most beautiful rivers in the world ; the purity, salubrity, and sweetness of its waters, the frequency and beauty of its meadows, its absolute freedom from aquatic vegetables, the enchanting elegance and grandeur of its banks, sometimes consisting of a smooth and winding beach, here covered with rich verdure, there fringed with bushes, now crowned with lofty trees, and now formed by the intruding hill, the rude bluff, and the shaggy mountain ; these are objects which no description can equal.

4. ***Rivers.*** Few countries are better watered than New England. There is scarcely a farm without a brook, mill-stream, or river. These rivers are remarkable for flowing over different levels. Water-falls are abundant. There is not a brook or river whose course is not broken by them, and many of the streams are little more than a succession of cataracts. The falls are most numerous toward the heads of the streams. None of them is remarkable for height, but some are highly picturesque.

The currents of the rivers are rapid, and their waters remarkably clear. In the spring and summer they are subject to inundations, called in this country *freshets*, occasioned by the melting of the snow upon their banks, or the fall of heavy rains. Upon these occasions, the rivers often overflow their beds, and rush to the sea with such velocity, as to sweep away bridges, houses, and everything upon their banks. The Boston schooner, which was run down by a Methodist meetinghouse in Long Island Sound, as sung by the poet, was no fiction. The rivers are sometimes bordered with high and rocky banks, but some of the larger streams have wide valleys. The principal river of New England is the *Connecticut*, which rises in the Highlands that separate Lower Canada from the United States, and, taking a southerly course between Vermont and New Hampshire, traverses Massachusetts and Connecticut, and falls into Long Island Sound, after a course of 450 miles. At the northern boundary of Vermont, it is 150 feet wide, and in Massachusetts and Connecticut, its breadth varies from 500 to 1,000 feet. It meets the tide waters at the foot of Enfield Falls, having a descent of 1,600 feet in 330 miles. It is navigable to Hartford for vessels drawing 8 feet of water, and, by the aid of canals, for flat-bottomed boats to the distance of 270 miles from its mouth. Its valley is infinitely diversified with mountain and meadow, and on its borders are situated some of the prettiest towns in New England. It overflows its banks annually in the spring. The shad fishery in this river is very valuable.

5. *Lakes and Ponds.* New England is abundantly supplied with lakes and ponds. The larger ones will be particularly described. The smaller sheets of water are scattered about in every part of the country. Within a dozen miles of Boston, there are more than twenty, and in the six New England States, there are probably above a thousand. They often form pictures of exquisite beauty. Their shores are commonly high and varied ; they sometimes show a bright gleam in the midst of a dark forest, and at other times are surrounded by meadows and farms. In the neighborhood of the large towns, their romantic borders are occupied by country seats. Nothing can be more cheerful than the aspect they impart to the landscape. They are supplied generally by subjacent springs, and their waters are cool, sweet, and limpid.

6. *Bays and Harbors.* The great bays of this region, under which name we must include also Long Island Sound, afford a free navigation, from their depth of water, and the absence of dangerous shoals. Hardly any country is better furnished with harbors. The whole coast is indented with inlets and mouths of rivers, which afford almost every town, lying upon the sea, conveniences for commerce. The harbors of Portsmouth, Boston, and Newport, are equal to any in the world, and, in the event of future wars, will be important naval stations.

7. *Shores.* The coast is, for the most part, rocky and bold. The sandy district of Cape Cod is the only considerable exception. The headlands which bound Massachusetts Bay, are the most prominent points. Almost every cape, point, and island along the coast, is furnished with a lighthouse.

8. *Climate.* New England is subject to great extremes of temperature. The winters are much colder, and the summers hotter than under the same parallels in Europe. Greece and Italy cannot boast of more exquisite days than the summer and autumn here exhibit; and the most foggy, ice-bound region of the north, does not endure a more disagreeable visitation than the cold mists of a New England spring. The climate is more open and more varying on the coast than in the interior. In the severest cold of winter, every lake and river is frozen, and most of the harbors on the coast are sometimes hermetically sealed. The northwest winds, at this time, usually blow from one to four days, and slacken at sunset. When they cease, the sky grows cloudy, and rain or snow follows. The northeast winds are very tempestuous, and seldom blow 24 hours, without bringing rain or snow. The southeast winds are violent; they generally bring rain, and are soon over.

The heavy snowstorms seldom happen before the middle of December. The rains, which have previously fallen in abundance, having saturated the earth with water, the preparations for winter seem now to be complete. After a few days of clear weather, attended with warm southerly breezes, a cloud is seen gathering in the south. The sun, however, rises unobscured, but, in a short time, the whole sky is overcast with thin, gray clouds. The air grows sensibly colder. The farmer is seen carefully housing some of his cattle, and the people are many of them busy in gathering into the house an ample stock of wood. The snow now begins to fall in small particles, and descends in a noiseless and almost invisible manner. But the clouds gradually thicken and sweep more rapidly to the north, the wind slowly rises, and, in the course of an hour, the whole atmosphere seems filled with myriads of round flakes, which come slanting and swift to the earth.

The work thus seriously begun is not remitted, and mountain and valley are soon wrapped in an interminable sheet, which sometimes spreads from the southern shore of Connecticut to the Polar Sea. Throughout the day, the snow falls incessantly, and at night, the howling of the tempest and the rattling of the snow against the windows, give evidence to the comfortable inmates of the houses, of the work that is going on abroad. The morning comes, and the sun is shining upon the glittering surface of nature. But the wind is still high, and the air is intensely cold. The snow is driven like small clouds through the air, and drifted into innumerable heaps. But at length the wind is abated, and the snow being two or three feet deep, the inhabitants set about clearing the paths around their dwellings. They then go into the streets with their horses and cattle, and break out the public roads. The sleighs are then brought forth, and the merry bells are soon heard in every direction.

There is one spectacle exhibited by a New England winter, which perhaps surpasses all others in beauty and splendor. It occasionally happens, that the rain is congealed by the cold as it falls, and thus every object is covered with ice. The bending trees are loaded with it, and, as the storm generally clears off in the night, every twig and bough is glittering in the sun, as it rises. The beholder often sees before him a whole forest thus converted in one night, as if by enchantment, into trees of crystal, each flashing with the beauty and brilliancy of a thousand diamonds.

In the depths of winter, the rays of the sun, falling upon the wide, uninterrupted covering of snow, produce a dazzling brilliancy, that is almost insupportable. A moonlight at this season is equally remarkable, and its effects can be more easily endured. The moon is nearly the same with that moon of Naples, which the Italian told the king of England was "superior to his Majesty's sun." When the surface of spotless snow is shone upon by the moon at its full, and reflects back its beams, the light, indeed, is not that of day, but it takes away all appearance of night.

If the spring is the finest season in Europe, it is the most unpleasant in New England. No weather can be more capricious. Fogs, showers, and sunshine checker the whole period. The summer is brought by the southwest wind, which is the true zephyr of New England, and is the prevailing breeze of the warm season. This season begins with a clear sky, a hot sun, and a rapid vegetation.

Among the most beautiful phenomena of our seasons, may be reckoned those exhibited by the summer thunderstorm. In the minds of many persons, these only create a nervous dread; but to an observer who loves to contemplate nature in her sublimer moods, and draws inspiration even from a sense of danger, we know of nothing that is better suited to excite admiration. Droughts are unfrequent in New England; the forests of the mountain sides attract the moisture of the heavens, and the showers of summer are generally copious. A famine was never known here from the earliest period of regular cultivation. The finest weather is in the latter part of summer, and in autumn. The sunset at this season is often uncommonly splendid, and exhibits such magical effects of light, and such a universal tone of brilliant coloring, that the very air seems deeply tinged. The hills to the south of Boston display at such times those exquisite hues which the Neapolitans admire upon Vesuvius. The evenings during the whole of this season are delightful; however uncomfortable the heat may be through the day, the nights are sure to be cool and pleasant.

One of the most agreeable peculiarities in this climate is a period in the autumn, called the *Indian Summer*. It happens in October; the temperature is delightful, and the weather differs in character from that of any other season. The air is filled with a slight haze, like smoke; the wind is southwest, and there is a vernal softness in the atmosphere, yet it is very different from spring. The Indians have some pleasing superstitions respecting it. They believe that it is caused by a wind which comes immediately from the court of their great and benevolent god Cautantowwit, or the southwestern god; he who is superior to all other beings, who sends them every blessing which they enjoy, and to whom the souls of their fathers go after their decease.

9. *Soil.* Of this, there is every variety. There are not, except upon the shores, any tracts of utter barrenness, and most of the mountain sides are susceptible of cultivation; yet the level regions are stony, and the country, on the whole, cannot be called fertile. Sand, loam, and clay exist in the earth, in all their various mixtures; but the most common soil is a light brown loam mixed with gravel. The salt marshes have a deep and rich soil, and where they can be reclaimed from the water, may be rendered highly productive. There are thousands of acres of wet land, that may be easily drained, and rendered of the highest value for tillage.

10. *Agriculture.* The farms in New England are smaller than in any other part of the United States, yet the great fault of agriculture here, is the occupation of too much land. The price of labor is high, and land is cheap. The common results of agriculture cannot, therefore, be considered as displaying the full capabilities of the soil. One of the greatest annoyances to the cultivator of grain, has been the Hessian fly, which appeared at first at Long Island, near the encampment of the Hessian troops, during the war, and entered New England about 1787, advancing at the rate of twenty miles a year. Blasts, also, sometimes attack the wheat and rye, when their vegetation is too rapid. The canker-worm first appeared in 1666, and has continued to the present time. The apple trees are principally exposed to their ravages. These insects, with the caterpillars, will, if not guarded against by the farmer, strip an orchard as completely of its foliage, as if it had been laid waste by fire. Fortunately they remain only a few weeks in a season.

11. *Scenery.* The whole surface of New England is checkered with cultivation, except the northern parts of Maine and New Hampshire. There are many beautiful villages in the country, but the farm houses are generally scattered along the roads. The most pleasing of all rural scenes, and those of the most frequent occurrence, are composed of a farm house, shaded with two or three spreading elms; large barns; an extensive orchard; one or two fields of maize, beautiful in all its changes; a small brook, with a green meadow, and a patch of woodland that supplies the farmer with his fuel. In traveling through the six States, cultivation may be witnessed in all its different stages, from the log hut of the new settler, in the midst of the forest, to the farms of the older districts, that have been cultivated for two centuries.

12. *Animals.* In a great part of the country, the wild animals have been completely exterminated. In the northern parts, the moose and the caribou are still occasionally met with, and the Canada lynx, the wolverene or glutton, the black bear, and the wolf are still found in the wilder tracts. A cougar or panther has also occasionally been shot in New England, within the present century. The Virginia or common deer is abundant in the north, and is also found in the southeastern part of Massachusetts. The red fox, weasel, woodchuck or marmot, otter, mink, skunk, raccoon, hare, musquash, various squirrels, &c., are also numerous. The quail, called partridge in the south, the ruffed grouse, called partridge in New England, and pheasant further south, and occasionally the wild turkey, are met with. A great number of migratory birds visit these States in summer; thrushes, woodpeckers, the humming bird, the wild goose, various species of duck, passenger pigeon, the raven, several owls, eagles, and hawks abound;

and clouds of water-birds throng the bays along the coast. Details respecting these and other animals will be found under the head of North America.

13. *Inhabitants.* The early settlers of New England were almost entirely of English descent, and in language, manners, customs, and many characteristics, their descendants are English still. On the continent of Europe, the natives of New England are invariably taken, from their appearance, for Englishmen. Many of them have fair complexions, but others are as dark as natives of the south of Europe, and, in the cast of countenance, there is great diversity. They are generally robust, and capable of enduring great hardship and fatigue. They are somewhat taller, and more slender in form, both men and women, than the inhabitants of Great Britain. They are called Yankees by the people of the other States, and the appellation which was at first used disparagingly, has grown into a name of honor. It is probably derived from the Indian manner of pronouncing the word English. Of foreigners settled in New England, the most in number are Irish, who are day laborers, and English, who are principally mechanics or manufacturers. There are few of any race but the white. The inconsiderable number of blacks and mulattoes, are not distinguished for industry or discretion, though there are not wanting among them, expert mechanics, and good and orderly citizens.

The original proprietors of the soil have dwindled into the remnants of a few tribes which we shall severally notice. The Penobscots alone have preserved their language. The Indians generally are simple and inoffensive, but poor, debased, indolent, and prodigal. They will part with all they possess for ardent spirits, and in some places they are so degraded, as to live without the institution of marriage. They sometimes wander about to sell baskets and brooms ; though not honest, they are seldom known to engage in any great crime, or offence against the laws. They dress in the usual materials, which are made up somewhat after their own tastes. In general, the tribes are much mixed with other races, particularly with the negro. At Marshpee, they have the advantage of living secluded from the whites, in a region abounding with fish and game. It is singular, that in the spot the earliest settled by Europeans, the aborigines, and the beasts of the chase that have elsewhere been long extinct, should be found at this day. Few of these Indians have ever been reclaimed, even by the advantages of education, from their sylvan tastes and pursuits.

14. *Classes.* There are by law no classes that have privileges above others ; all the orders are voluntary, or such as society naturally divides itself into. The learned professions may be ranked highest in point of influence, and after these, the chief divisions are merchants, manufacturers, mechanics, and the larger class of those who cultivate the soil. There are a few titles, though no privileges of rank. The Governor is called His Excellency, the Lieutenant-Governor is addressed as His Honor, and to thriving people generally, is tendered the title of Esquire.

15. *Dress.* The people generally dress better than those of the same grade in other countries, and it is not common to see one in rags, or otherwise than comfortably clad. The fashions are the European, and those from London are the most esteemed. The families of farmers were formerly clothed in articles of their own making, though but few are so now. Hats are generally worn, though caps of cloth or fur are not uncommon. In winter, fur is worn for trimmings, and sometimes for dress. The dress of the females, even in remote villages, is neat and showy. Straw hats are principally worn, and they are made in almost every town, and in a variety of tasteful patterns.

An English traveler gives this description of an assemblage at a court in Maine. " The Supreme Court was to be opened in the morning, and I attended to hear the jury sworn in, and the judge's charge. Both the grand and petit jury, in the appearance of which I could discern no difference, seemed to be composed of respectable yeomanry, of about the same rank as our farmers of £300 to £500 per annum. They listened with great attention, while the judge read a plain, sensible charge, much to the point. The aspect of the court in general, pleased me, from the homely and suitable appearance of those of whom it was composed ; they were attired in homespun clothes with large buttons, and long waists ; waistcoats with the old triangular indenture, or pointed flaps, and hats with good broad respectable brims."

16. *Dwellings and Buildings.* In general, the country houses in New England are not distinguished either for taste or convenience. They are often large, shapeless masses, built at various times, and without order or symmetry. An artist would hardly find a farm house fit for his portfolio. They are too often devoid of shape ; for as the early settlers found the forest an enemy, their descendants seem to inherit the hostility, and will not let a tree remain. They prefer an " open prospect " to an agreeable shade ; though better taste is dawning both in

houses and grounds. The houses are chiefly of wood, and it is fortunate that such designs are not perpetuated in brick and stone.* The barns are large, as not only the animals are sheltered, but the hay and grain are housed, which, in many countries, are stacked in the open air. Here and there by the side of the older houses may be seen a "well-sweep," a primitive contrivance to draw up water by a pole, which is attached to a beam, moving up and down on an axle. It is a sort of lever ; the bucket and beam are so nearly balanced, that a little aid from the hand is sufficient for the machinery. The villages are generally neatly built, and some of them are the most beautiful in the world. The church is a prominent object in a village ; it has generally a bell, and a spire, with a green or "common" in front. In the large towns, the architecture, with some exceptions, is of a good style. The banks are perhaps the best edifices, not only of New England, but of the United States. They are often built from Grecian models. The churches are also neat and imposing edifices, and of various orders. The village churches of England, built of stone and covered with ivy, are worthy models for our imitation. The abundance of building stone in all parts of New England, would render it more economical to build the churches in this way, than of the ordinary materials.

17. *Food and Drink.* The food may well be called substantial, and the variety and quantity are enough to denote a land of plentiful supply. An English traveler in New England remarks, that Henry the Fourth, who wished that each of his subjects might be so rich as to have a chicken for his Sunday dinner, could here have had his generous desire more than gratified. The breakfast, which, in the country, is held at an early hour, and often by sunrise, is no evanescent thing. In a farmer's family, it consists of little less than ham, beef, sausages, pork, bread, butter, boiled potatoes, pies, coffee, and cider. The use of coffee in the morning, and of tea at night, is almost universal. At hotels and boarding-houses, the standing breakfast is of beef, mutton, ham, broiled chickens, sausages, tripe, various kinds of fish, tongue, bread, butter, coffee, and cider. Few people are so poor as not to have animal food, at least twice a day ; on Saturday, it is usual to have for dinner, salted cod fish.

Cider is drunk at all times of day, as was formerly used in every house ; in common seasons, it is worth about a dollar the barrel. In the country, it was till very recently considered hardly reputable among farmers to omit to offer cider to any casual visitor, or traveler; it is usually drawn in a mug or bowl. It is a slightly intoxicating liquor; but is seldom taken in a quantity that intoxicates. The most usual bread in cities is made of wheat flour; in the country the common bread is made of a mixture of rye and Indian corn. The meal of the latter is also boiled in water to the consistency of a thick paste, called "mush" or "hasty-pudding," which is eaten in milk, or with butter and molasses; and when cold cut into slices, and fried in butter or lard. This is the subject of a poem, which, if not the best, is at least one of the most popular in New England. Perhaps, however, the true national dish, for which the absentee has the greatest longing, is the white bean, which is baked with salt pork, and saturated with the fat. No feast in the country is perfect, or indeed tolerable without it. The common dinner hour in the country is at noon, and in cities from one to three o'clock. The dinners are despatched in such haste that the table is often cleared in half an hour.

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* The following extract satirizes a class of persons not very numerous in New England, but yet occasionally met with. It may, on the whole, be considered a broad caricature, but possessing so much truth as at once to remind us of the original for whom it is intended.

"The first thought of a Yankee farmer, on coming to the years of manhood, is to settle himself in the world, which means nothing more than to begin his rambles. To this end, he takes to himself for a wife some buxom, country heiress, passing rich in red ribands, glass beads, and mock tortoise-shell combs, with a white gown, and morocco shoes for Sunday, and deeply skilled in the mystery of making apple-sweetmeats, long sauce, and pumpkin pie. Having thus provided himself, like a pedler, with a heavy knapsack, wherewith to regale his shoulders through the journey of life, he literally sets out on his peregrinations.

"His whole family, household furniture, and farming utensils, are hoisted into a covered cart; his own and wife's wardrobe packed up in a firkin; which done, he shoulders his axe, takes a staff in his hand, whistles 'yankee doodle,' and trudges off to the woods, as confident of the protection of Providence, and relying as cheerfully on his own resources, as ever did a patriarch of yore, when he journeyed into a strange country of the Gentiles. Having buried himself in the wilderness, he builds himself a log hut, cleans away a cornfield and potatoe-patch, and, Providence smiling upon his labors, he is soon surrounded by a snug farm, and some half a score of flaxen-headed urchins, who, by their size, seem to have sprung all at once out of the earth, like a crop of toadstools.

"But it is not the nature of this most indefatigable of speculators to rest contented with any state of sublunary enjoyment; improvement is his darling passion; and having thus improved his lands, the next thought is to provide a mansion worthy the residence of a landholder. A huge palace of pine boards, immediately springs up in the midst of the wilderness, large enough for a parish church, and furnished with windows of all dimensions; but so ricketty, and flimsy withal, that every blast gives it a fit of the ague. By the time the outside of this mighty air-castle is completed, either the funds or the zeal of our adventurer are exhausted, so that he barely manages to half finish one room within, where the whole family burrow together, while the rest of the house is devoted to the curing of pumpkins, or storing of carrots and potatoes, and is decorated with fanciful festoons of dried apples and peaches.

"The outside remaining unpainted, grows venerably brown with time; the family wardrobe is laid under contribution for old hats, petticoats, and breeches, to stuff into the broken windows; while the four winds of heaven keep up a whistling and howling about the aerial palace, and play as many unruly gambols as they did of yore in the Cave of Æolus. The humble log hut, which whilom nestled this improving family snugly within its narrow but comfortable walls, stands hard by, ignominious contrast! degraded into a cow-house, or pig-sty ; and the whole reminds one of a fable, that I am surprised has never been recorded, of an aspiring snail, who abandoned his humble habitation, which he had long filled with great respectability, to crawl into the empty shell of a lobster, where he could no doubt have resided with great style and splendor, the envy and hate of all pains-taking snails in his neighborhood, had he not accidentally perished with cold in one corner of his stupendous mansion.

"Being thus completely settled, and to use his own words, 'to rights,' one would imagine that he would begin to enjoy the comforts of his situation, to read newspapers, to talk politics, neglect his own business, and attend to the affairs of the nation, like a useful and patriotic citizen ; but now it is that his wayward disposition again begins to operate. He soon grows tired of a spot where there is no longer any room for improvement, sells his farm, his air castle, petticoat windows and all, reloads his cart, shoulders his axe, puts himself at the head of his family and wanders away in search of new lands, again to fell trees, again to clear cornfields, again to build a shingle-palace, and again to sell off, and wander." — *W Irving.*

The most general drinks after cider, are beer, and the various kinds of spirits. The use of beer, however, has much diminished the consumption of spirits; and the light French wines which are growing into use, are excellent substitutes for the deleterious mixtures of brandy and other ingredients, that are sold as the wines of Portugal or Madeira. The West India rum, brandy, gin, and whiskey are still much consumed; and were formerly found at every inn, and in too many other places. But the most deleterious spirit is the New England rum, which is distilled from molasses, and sold so cheap that the wages of a day's labor will purchase three gallons of it. Intemperance has been the great domestic curse of New England, compared with which the sweeping of a plague would have been a visit of mercy. Three fourths of the poverty and crime that lead to the alms-house and the prison, spring from this fruitful source.

There is hardly a village in New England, where the traveler will not see houses marked with the negligence and ruin that attend intemperance, and more than one miserable object, often the wreck of a noble man, degraded below the rank of brutes, by habitual intoxication. The tide of ruin, however, is fast receding. The numerous temperance societies have done much to check the evil, and in Massachusetts a law has been passed forbidding the sale of ardent spirits in small quantities.

18. *Diseases.* There are few diseases peculiar to New England. The most fatal and gen-

eral are pulmonary complaints, arising from the severity and variableness of the climate, but too often in females from exposure with insufficient dress. The longevity in New England is about as great as that of any other country.*

19. *Traveling.* Few countries have such facilities for cheap, agreeable, and expeditious traveling. The waters of sufficient depth and the ocean itself, have numerous convenient steamboats; the roads, which are generally fine, are thronged with stagecoaches, most of which are good. But on many of the great routes, the stagecoaches dragged by horses have given way to the easier and more expeditious railroad car, which is driven along by locomotive steam-engines at the rate of 20 or 25 miles an hour. A railroad consists essentially of an artificial level made across the country by cutting through the hills and filling up or bridging over the valleys; and on which are laid iron rails, resting on wooden or stone supports or sleepers. In this way the least possible friction is opposed to the motion of the wheels over the surface. After the most favorable route has been determined by preliminary surveys, the engineer being governed in his decision by the directness of the route, and the face of the country, the road is graded, that is, the level roadway is constructed by cuttings and embankments, as before mentioned, and is ready for receiving the rails; these last are generally fixed on stone blocks or wooden cross-pieces, laid at short distances from each other, in such a manner as not to be heaved by the frost, but are sometimes attached to longitudinal timbers extending continuously the whole length of the road. The cars are often made of great size, so as to accommodate from 50 to 60 passengers, and to admit of being warmed in winter; in some instances they contain neat private rooms for ladies or families. To a train of these cars, sometimes containing from 250 to 300 passengers, a locomotive steam-engine is then attached, and at the given signal this little traveling village starts off at a rapid rate, realizing the old fairy stories of the seven leagued boots. When there are hills in the route too lofty or rugged to be cut down, a tunnel or subterranean gallery is sometimes made through them for hundreds of feet, or they are passed by means of inclined planes, in which case stationary engines are commonly employed to overcome the increased resistance, occasioned by the rise of ground. This contrivance of railroads is one of the most important inventions of modern times, and is especially useful in this country, where the distances from city to city are so great, and the ordinary roads and coaches often so poor. A traveler is seldom seen on horseback in the Eastern States. The fare in the coaches varies from 3 to 5 dollars for 100 miles. In Boston, there are hourly coaches, which run during the day, to all the principal adjacent villages, at a very low rate.

The most common vehicles of New England are coaches, covered and open wagons, and one-horse chairs or chaises. The light wagon is used in almost every family in the country. In winter, the sleighs or sledges are everywhere in motion, and the horses are dressed, as the law directs, in strings of bells. The sound has an enlivening effect, though the design of the bells is to prevent accidents by collision; for a sleigh and horse go so quietly and noiselessly on the snow, that some warning to the ear is necessary, especially at night, or when it snows. Sometimes the roads are so blocked up by drifts of snow, that it is a week before they are passable, and much longer on the less public routes. On these occasions the people turn out in great numbers and "break out" the roads, as if the employment were a holiday sport. Some twenty or thirty precede with snow-shovels, and cut a path for the cattle, which sometimes follow in lines of thirty pair. The road to church, is the first cleared, which is also generally the road to the village. When the snow is deep and light, with no crust or ice upon it, that will bear the weight of a man, snow-shoes are worn. These are made with rims of nearly an oval shape, and covered with a net work of sinew. When lashed to the foot, they sink in a light snow about four inches.

The best inns in New England are many of them excellent in some respects, but are by no means equal to those of England. They are abundantly provided with food, but this is not always well cooked. They are also deficient in cleanliness, and in those attentions to the wants of a traveler, which alone can make him feel at home, when he is in a strange place. These defects, however, arise from ignorance rather than from a want of means or good disposition. In England, the keeper of a hotel or inn is always bred to his business, and is therefore thoroughly acquainted with it. English travelers, with few exceptions, are dissatisfied with our inns. This can be explained by a reference to facts. A stranger on arriving at an English inn, is received at the door in the most cheerful and polite manner. He is conducted to a lodging room which is provided with excellent beds and an abundance of good furniture; the touch of a bell brings a servant, who, with an air of the utmost alacrity, receives his commands, and with magical celerity almost every wish and want are supplied. The meals are furnished with promptitude, and the cookery shows that a person of skill and experience superintends that department, so much neglected in our own country. Under such circumstances, the stranger finds himself at home, and after the fatigues of a journey, is comfortable and happy.

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* The only epidemics, that have been known to prevail in New England, are the following: In 1647, a pestilential fever, as it was called, spread through the whole continent as far as the West India islands. In 1655, a similar disease prevailed in New England. In 1735 the scarlet fever made its appearance in New Hampshire, and extended westward and southward throughout the British colonies; it has appeared several times since that period In the early part of the revolutionary war, the dysentery swept off many persons. In 1811 a new disease, and peculiar to this country, by the name of the *spotted fever*, appeared in the interior, but its operations were not very extensive.

At an American tavern the traveler is too often received with cold civility. After waiting for a chamber to be put in order, he is conducted to it. He finds a very small room scantily furnished. He looks around for the bell, but none is to be found; he calls for a servant, but no answer is given. In this dilemma he is obliged to go to the bar-room, and a servant after a little delay comes to his assistance. When the immediate call is attended to, on the next occasion the same process is to be gone through. When the meal is prepared the traveler finds a profusion of meat and drinks spread before him. But the coffee is not good, the steak is not well cooked, and, in the midst of abundance, he finds little that he can truly relish.

20. *Character, Manners, Customs, &c.* The people of New England are grave, though they are not without humor; many of their amusements are of a reflecting kind, and their conversation tends rather to useful than to light or gay subjects. They are moral and pious, and the descendants of the Puritans retain much of the strictness of their fathers. If not ardent, they are to a great degree persevering, and though inquisitive, they are equally communicative. They are shrewd and calculating, yet not deceitful. They are no "granters of propositions"; with them almost all things are subjects for discussion, in which they manifest much ingenuity. They have a caution, that prevails in all things, and they seldom answer directly an abrupt question, without knowing why it is asked. They have the impress of Franklin; Poor Richard's maxims of thrift fall upon a congenial soil, and no proverbs are oftener quoted, or more followed. They are like Franklin, to a great degree inventive in practical things, and far the greater number of inventions in the patent office, are from New England. It is peculiar to these people, that they are seldom found without a pocket-knife, which they use with dexterity; and boys at school are frequently seen *whittling*, or cutting wood into some shape, for a windmill or other toy. It is a universal trait, and it is said, that a gentleman in Havana, who invited a large company to dine, gave each man from New England a shingle to cut, that they might not carve his furniture.

The situation of the females marks a high grade of society. Their employment is always domestic, and within the house, and they are never seen engaged in any agricultural occupations with men, as in almost every other country. The origin of the people of New England may be traced in their scriptural names, and there are others that would not have been without honor even in the days of Cromwell, as the prefixes of Relief, Mercy, Rejoice, and Thankful, which are still common names. In retired spots there is much of the ancient simplicity of character, and the patriarchs who may there be found with a numerous offspring around them, are worthy of the following description, which was made for a peasant of the Alps:

"Thy humble virtues' hospitable home,
And spirit patient, pious, proud, and free;
Thy self-respect grafted on innocent thoughts;
Thy days of health, and nights of sleep; thy toils
By danger dignified, yet guiltless; hopes
Of cheerful old age, and a quiet grave;
And thy grand-children's love for epitaph.'

One of the first traits developed in the New England character is, if not a love of gain, at least a disposition to traffic. It commences at an early age, and children at school not only exchange or "swap" knives, and other things, but make lotteries, in which the prizes are paid in gingerbread and raisins, and which leave a little profit to the manager and proprietor. The farmers too, though not the most industrious kind, sometimes bring up horses and cattle for a "swap" to the village inn; and the tin-pedlers, whose wheels are in every road in the United States, are to a man from New England.

Another trait of character is the readiness with which the people of New England admit the equality of all men with themselves, and the steadiness with which they deny, both in theory and practice, that any are superior. It would raise a tempest in the breast even of a female domestic, to ask for her *mistress*, nor would she be satisfied to be called a servant, or even a domestic. *Help* is the word by which servants reconcile their pride with their interest or employment, as it denotes, that, though the assistants, they are the equals, of their employers. A foreigner probably finds some ground for dissatisfaction on the score of domestics, for among housewives it is a subject of universal complaint at home; the best servants are English, who have been more familiar with the distinction of classes.

The people of New England are distinguished for their *celebrations*. They are interlocked with each other by innumerable societies and associations, and one man is a member of many. These have their anniversaries, which, with the national and other holidays, make a great many processions, public dinners, and addresses. It is also usual to offer public dinners to those who have done acceptable services in high public stations.

A town meeting is perhaps the best place wherein to see the self-control of the people, when highly excited on questions of general or local interest. Every town is within certain limits a pure democracy, and its doings are attended with perfect decorum under the moderator, who is chosen, as the word implies, to mollify any over-zealous excitement. If on these occasions any citizen becomes turbulent, or abusive in language, the sense of the assembly is so strongly expressed against him, that he is at once reduced to order. Generally speaking, there are no mobs or riotous assemblies. The interference of a few constables, or the reading of the "riot act" by a magistrate, is sufficient to disperse any tumultuous throng. A tumult at a town meeting or election, is a thing unheard of among us.

Some of the most peculiar manners and customs of New England are found in the island of Nantucket and the neighboring part of the continent. Nantucket is a happy settlement; not that it has precious metals in its bosom, or fertility in its soil, but because the people are simple, innocent, and contented. The sea is their patrimony, and they gather its bounties in the most distant parts. The whale fishery in New England was commenced by six persons in Nantucket; one watched on an eminence for the spouting of the whale, and when he discovered it, all would pursue in a small boat, and they seldom failed to tow the leviathan ashore. Gains extended the adventure, ships were fitted out, and the whale was chased from the temperate regions to the Arctic seas, and followed to the remotest shores of the Pacific Ocean. Among the people, there are none idle, and few destitute. The vices of commercial places are hardly known, and it is admitted all over New England to be a great presumption in favor of a man's honesty, that he comes from Nantucket. The Friends or Quakers give to the language a simplicity of diction truly Doric; and, though they take some liberties with the Commonwealth's English, yet to speak in a more classic manner, would be held to savor of affectation and pretension, in a person brought up with them. The various relationships, and the kindly feelings, have introduced the custom of calling elderly people uncle or aunt, and the younger, cousin. Even a stranger soon falls into this habit. The people generally marry young, and few live in celibacy. They are social to a great degree, and are eminently distinguished for their frequent visitings to sup at each other's houses. They live more as though they made a large family, than a small community.

The following tribute to the New England character is from Captain Hall, whom no one can accuse of a desire to overpraise what he saw in this country. "I had, however, many sharp amicable discussions with my friends at Boston on the thousand and one topics that arose between us, but I must do them the justice to say, that I never met a more good-natured, or perhaps I should say, good-tempered people; for during the whole course of my journey, though I never disguised my sentiments, even when opposed to the avowed favorite opinions of the company, I never yet saw an American out of temper. I fear I cannot say half so much for myself; for I was often a good deal harassed by these national discussions, when the company and I took our stations on the opposite poles of the question. But it is pleasant to have it in my power to say, that I cannot recall a single instance in which any thing captious or personally uncivil was ever said to me, though I repeated openly and in all companies, every thing I have written in these volumes, and a great deal more than, upon cool reflection, I choose to say again."

21. *Amusements.* In general, the amusements are of a thoughtful, rather than a gay character, and games of skill are preferred to those of chance. The character of the Puritans has given some tone to the amusements and holidays. Theatres are seldom even fashionably at-

tended, and there are many who hold it unlawful to enter them. There are places, too, in the country, where dancing is considered to be a "vain, idle, and sinful amusement."

The active sports are principally games of ball, and sometimes running and wrestling; formerly, different towns and parishes had their champions in wrestling, to try their superiority by matches, in which several fatal accidents occurred; but the sport is now almost entirely disused. Boxing, which is so universal in England, is almost unknown, and horse-racing and cock-fighting are seldom seen. In winter, when there are delightful moonlight nights, sleigh-rides are a favorite amusement. Parties of both sexes sit in large sleighs as closely as they can be packed, and sometimes in each other's laps, scour over several miles at a rapid rate, and at some hotel find not only a supper, but a fiddler in attendance, whose gains are much enhanced in the season of sleighing. There are several holidays, but none that are observed in England. Skating is a very general amusement in the northern parts of the United States, and there are few boys who have not a pair of skates. *Coasting* is another winter pastime, in which, as in many other games, the labor seems to be at least equal to the pleasure. When the snow covers the earth, a troop of joyous boys assemble on the top of a long and steep hill, and each one sitting upon a little sled, gives it an impulse, which carries him to the bottom with accelerating velocity, and far into the plain below. The motion is sometimes so swift, that it is like the sweep of an eagle. In the cities, fatal accidents occur in following this amusement, and there are generally penalties imposed by law for pursuing it there.

The coasting is performed, however, in the country upon a grander scale; the great ox sled, or sledge, is carried up with commendable perseverance and toil, and so covered with youth of both sexes, that little of the timber appears. When fitted, it is launched, but when adrift it is more difficult to be guided than the single sledge, and the whole freight is sometimes turned topsy-turvy into a snow bank half way down the hill. This, however, seems to increase the enjoyment.

Fast day is an observance that has descended from the pilgrims, and is kept with a decent solemnity. The governors appoint one day in the year, in all the New England States, for "fasting, humiliation, and prayer;" there is little business transacted, and the people generally attend in the churches, which are called more generally, from an old dislike to episcopacy, meetinghouses. Thanksgiving is also a day appointed by the same authorities, and the intent of the edict or proclamation is carried into full effect by the disposition of the people. It is always appointed in the *fall* or autumn, after the harvests, when the garners are full; and poor indeed is the inmate of the hovel that has not on that day plenty and luxury on his board. The preparations for Thanksgiving continue several days, and for many more the prepared viands are not exhausted. It is the day for family meetings, and it is then that members of the same family often come hundreds of miles to meet again, to renew the bands of affinity and affection under the paternal roof. It is at this feast, that the simplicity and patriarchal character of a New England grandsire is preëminent.

Before and after Thanksgiving, there are held all over the country "shooting matches," which are announced by printed placards, headed "sportsmen attend!" and which set forth that geese, turkeys, and fowls will be set up for marksmen. They are shot at, generally after they are killed, with rifles at certain distances, and rates are paid for every shot. If they are hit, the marksman has the game. These sports are commonly held in some retired spot, or at some deserted house, by which there is little passing, and where a day or two is spent as in an encampment. A bear or deer is sometimes shot at in the same way.*

Autumn also brings other holiday observances, one of which is "husking," when the men of a neighborhood meet to husk the Indian corn of one of the number, that is, to separate the ear from the husk A good supper, and sometimes a dance ensues. The females have also similar meetings, called "quilting bees," when many assemble to work for one, in padding or *quilting* bed coverings or *comforters.* An ordination of a clergyman over a society, discloses the better New England characteristics. It is a time when every house in the society is invitingly open, when the master generally "provides" for more guests than he has the good fortune to secure ; and when he may be seen forestalling his neighbors by asking visiters to dine, before they arrive at the church. Persons of all creeds and conditions are pressed, nothing loth, to the feasts that smoke upon a hundred tables.

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* The feast of *Squantum* is held annually on the shore to the east of Neponset bridge, at a rocky point projecting into Boston Bay, about 5 miles from the city. The observance of this festival is on the wane. Squantum was the name of the last Indian female who resided there, and when the feast is held with the ancient ceremonies, a person comes forth dressed as Squantum herself, and harangues the people in the metaphorical manner of the Indians. During the late war, when political parties were violent, the feast of Squantum was attended by crowds, and, in fact, both parties had a distinct celebration. Some of the ceremonies consisted in brightening the chain of peace, and in burying the tomahawk in a place indicated by the representative of Squantum. A Sachem, too, dressed in blanket and moccasins, would sometimes assume the direction of the feast. The Indian phraseology is affected, and the notification of the feast sets forth, that the "wigwam will contain all the good things of the sea and sand," and it is commonly dated at the new moon of the month of string-beans.

It is a "feast of shells," and the refreshments are lobsters, clams, oysters, quahogs, and every fish that is covered with a shell, together with the fish soup called chowder. It is common to eat these only with clam shells instead of spoons, and it is not held to be proper to drink from any thing but wood. This is the only observance that reminds the present proprietors of the soil of the simple race from whom they wrested or received the possession.

Ploughing matches and cattle shows are held only in autumn ; they attract many people, and give a favorable impulse to the interests of agriculture. The celebration of the 4th of July, or, as it is called, Independence, is not peculiar to New England ; it is the great national holiday, honored by salutes of cannon, fireworks, processions, addresses, dinners, in all cities, and in the most secluded corners of the Republic.

22. *Fine Arts.* In New England, there is much talent for imitative arts, and the taste is becoming more elevated, but there is too little reward for the talent to be much developed. Several painters, however, have, under all the disadvantages of laboring without adequate reward, and of studying without models, attained to eminence, and their works are admired even in Europe ; there are also sculptors who have become distinguished. There are in Boston, and in many of the large towns, many casts from the best antique sculptures, and in the State House is one of Chantrey's best works, the statue of Washington. There are also a considerable number of good paintings, generally owned by private persons. Connected with the Athenæum, at Boston, is a gallery, to which the proprietors of good pictures send them for a few weeks in summer, to be exhibited. The collection thus made, together with the original works of artists offered for exhibition, is large and excellent, and is doing much to form the public taste. The avails of the exhibition are devoted to the encouragement of the arts, and they are considerable. A recent exhibition of Allston's paintings in Boston, showed a collection that can hardly be excelled in any country, by the works of a living artist.

23. *Education ; its Diffusion, &c.* It was the opinion of the early settlers, that the best security for religious and civil liberty, was the diffusion of education ; and accordingly they established the system of common schools, that diffused the benefits of knowledge over New England. Generally speaking, there are none who cannot read and write, and positively none that have not had the opportunity to learn.

In New England, the cheapness and numbers of periodicals give almost every family access to at least one newspaper, and many take several papers, besides other periodicals. The people are generally pretty well informed of European events, and the wars and other occurrences in Europe form a frequent subject of conversation. The counties have their separate newspapers, and in the cities they are in number beyond all parallel in Europe. In Boston, there are about 60 newspapers and other periodicals. These, as well as the country papers, and those of all large towns, are distributed over New England. Besides these, there is in most towns some social library with a good selection of books, which are constantly circulated ; some of them in small towns contain a thousand volumes. There are few houses where there are not several books, and in many are to be found Scott's novels ; a number of other popular works, among which are generally the Life of Washington, History of the Revolution, and of the last war On the subject of domestic history, the people are exceedingly well informed, both by reading and tradition. The few of the survivors of the Revolution are much honored, and they often recount to their own circles the history of their adventures. The institution of Lyceums or associations for literary meetings and the hearing of lectures, in various towns, has had a very favorable effect, and the benefits are increasing.

A school in the country is a sight that would please a traveler. The scholars are generally neatly dressed, and when a stranger passes, they often form a line and salute him as he goes by. It is common, also, for children on the way to or from the school, to take off their hats and bow to whomever they meet. The examination of the school excites the interest of the neighborhood as Commencement does of a larger community, and the schoolhouses are generally filled with the parents and friends of the pupils.

The annual visitation of the schools in Boston, is a ceremony that is worthy of notice. The care of public schools is given to a few gentlemen, annually elected, who are called the school committee ; they with the municipality have the charge of all that relates to instruction. There is a yearly visitation of all these schools, by the school committee, accompanied by the clergy, the city officers, some of the principal citizens, strangers of distinction, &c. After the examination is gone through, all the boys who have distinguished themselves in the different schools join the procession with their masters, and partake of a dinner in Faneuil Hall. The appearance of the company is peculiar ; the children, their countenances glowing with the distinction they have acquired, are here seated at a public feast with the most venerable and dignified citizens of the town. They are here introduced, for the first time, into the hall where their fathers maintained the rights of their country, and which they may be called upon hereafter to support. After the cloth is removed, the children place themselves as they please, and are scattered about the hall in various groups, while the company are listening to songs, and drinking toasts, enjoying with a moderate hilarity a festival in which the finest feelings of the parent and citizen are deeply interested. The mixture of infancy and age, this public honor paid to education, this stimulating reward to childish merit, the sparkling pleasure of the young, and the mild satisfaction of the aged, the introduction of these boys into the public forum where they are hereafter to discharge their duty as citizens ; these together, present one of the most pleasing, and certainly most republican festivals that can be witnessed.

The following extract from an English traveler, may show how well informed the people are, even on subjects not connected with themselves. " As soon as we were known to be Englishmen, the first question of every pot-house is, 'well, and what are you going to do with your queen?' Even the old widows in the asylum took a private opportunity, while my conductors' backs were turned, to squeeze out of me all the information they could on the subject." " The Green Mountain boys appear to be as free and independent as in the times when Mrs. Grant describes them, and perhaps a little more enlightened. I scarcely saw an inn without a bible in the parlor, and there were, generally, other books. At one place, where we changed horses, was the Life of Harriet Newell, a present from the minister to the innkeeper's daughter, Whitefield's Sermons, Young's Poems, &c. ; at another, the poems of Walter Scott, the Pastor's Fireside, Blair's Lectures, Paley's Moral Philosophy, Darwin's Botanic Garden, Grammar, English Dictionary ; and all these in *one* room at a country inn." It is probable, however, that the inns in general have more books, and better selected.

24. ***Religion, Marriages, Funerals.*** It is not to be supposed, that the descendants of the puritans, of the men that dared all and endured all for conscience' sake, should be other than an eminently pious people. To see this, a stranger in New England need only see the manner in which the Sabbath is there kept. The observance of it is provided for by strict laws, but it is better secured by public opinion. The people generally attend their various churches, and with a solemnity of demeanor which shows that they go not there for idle ceremony or show. The " works of necessity or mercy " in which it is held lawful to engage on the Sabbath, are of a very limited number, and traveling is not one of them. In some of the States, it was formerly prohibited by law, and the law was rigorously enforced. There are few if any houses in the country where there is not at least one bible, and the New Testament is generally read in schools. There are, besides, great numbers of religious papers and periodicals, which are widely circulated, and the best devotional books are found in numerous editions.

The numbers of the different religious denominations may be found in their proper places, and here we may describe a sect that is peculiar in its doctrines, and very thrifty in worldly affairs. They form a sort of political as well as religious community, and call themselves Shakers, partly because of their violent dancing and gesticulation, and partly from a text in scripture which they interpret as having allusion to the extension of their doctrine ; " I will *shake* all nations and the desire of all nations shall come." They are in general the harmless race of men that may be expected from the union of fanaticism with simplicity. The Elders, however, have more wisdom, or at least craft ; all sins are confessed to them, their authority is despotic, and they pretend or aspire to visions, which they interpret in a manner well adapted to advance their own interests. They believe that all the affections are sinful, and children are instructed to forget, or to insult their parents, and husbands and wives to separate from each other, and their children. Their settlements are remarkable for neatness, and their wares and productions have the best character in the markets. Their dress is somewhat like that of the Friends.

In New England, there are many more living in celibacy than formerly. The advances made in wealth and refinement, seem to impose the necessity of sacrificing more to ostentation, so that it is now more difficult than it formerly was, to provide properly for a family. But the people marry at as early an age as is common in most countries, and the marriages are not only performed by a clergyman, but sometimes by a justice of the peace. It is, however, by far the most general practice to consider it a religious ceremony. Before marriage, the "intention" must be published at the churches of both towns where the parties may live, for from one to three weeks. A great many marriages in the country take place at Thanksgiving. The following description of the ceremonies attending one in Boston, is by an English traveler.

"A family circle of about 20, gradually assembled, and at 7, the ceremony was performed in the drawing-room, with considerable solemnity. I was glad to find the bridemaids very agreeable, and that one, of whom I was to have the especial charge, was very handsome. Our duties began immediately after tea, as it is the strange custom in Boston to see company the same evening ; it is the office of the groomsman to meet the ladies on the stairs, and conduct them to the bride, who sits or stands at the end of the drawing-room, with her maidens, to receive all who are presented to her. We had the honor of presenting to her nearly all the beauty and fashion of Boston, and I have not very often seen more beauty in one room. Sometimes while marching up, an unknown belle on my arm, and the insignia of my office, a white rose, on my breast, I was almost thrown into an involuntary fit of laughter, by thinking how you would be amused if you could see me. Towards the close of the evening it was no easy matter to work our way through the assembled crowd. About 10 o'clock all had disappeared but the bridal party, and after a little social supper prepared for the bridemaids and groomsmen, we dispersed also."

In the cities, a great change has occurred in the manner of observing funerals, which are now conducted with little publicity. In the country, the change is going on. The corpse is generally kept till the third day. Eight persons of a similar age with the deceased, are selected as bearers, and some person of dignity in the neighborhood assumes the conduct of the funeral. The body having been placed in a coffin in a room, the "mourners" sit near it, a prayer and sometimes an exhortation is made by the clergyman, who often inquires previously in public, the state of the deceased's mind, with regard to religion. The mourners then go, one by one, to take their last look at the features of their lost relative, and the corpse is then carried out, where it stands awhile and is also looked at by the rest of the company. The procession is then marshalled to the grave. The person who assumes the direction of the funeral, arranges the carriages for the procession, which moves at a slow walk to the grave-yard, which is often at some distance. Arrived at the grave, the mourners form a circle round it, and remain long enough to hear that hardest of all earthly sounds to bear, the earth falling on the coffin of a friend. They then retire, though one of the principal among them, generally returns thanks to the company, for their kindness on the occasion. A supper is generally prepared for the friends of the deceased and for the bearers ; though this is becoming disused. It was formerly the custom to have ardent spirits for all who attended funerals, but this is now obsolete.

The grave-yards in New England are not such as are generally found adapted to keep alive the memory of the departed. They are every way repulsive, and it is uncommon to see any person in them, except at burials. The older monuments are half buried in the earth, or broken, or overgrown with grass, and the later ones denote little improvement in taste. They are free, however, from the death's-head with cross-bones, which were sculptured on the ancient monuments, and seemed to grin at the beholder. They generally announce the name, title, and age, of the deceased, and are often closed by some passage of poetry or verse from the Psalms. There are, however, many burying-grounds in better taste, and at New Haven is one that might be taken for a model. At Cambridge, too, a large and appropriate tract of land, finely diversified, has been consecrated as a cemetery, and divided into lots for separate families. It is called Mount Auburn, and is one of the most beautiful spots in the vicinity of Boston.

The superstitions in New England are not very peculiar ; they are partially those common in England. The divining rod has been held in some respect, and some persons, even now, will not dig a well before the favored man, in whose hands the mystic bough will "work," has tested the vicinity of water. These rods are also used to discover buried treasure ; for there is in many parts a belief, that large sums of money have been long buried in their vicinity, though it is difficult to conceive how the Indians, or early European inhabitants, had so much to bury. A belief in buried treasure, however, rises with the decrease of evidence.

25. *Laws.* The laws of New England are modeled in many respects on those of Great Britain ; and the common law is also, to a certain extent, the law of the land. The statute laws are particularly devised for a religious as well as moral and enlightened people.

In Connecticut,* the provisions to secure the safety of morals, are perhaps the most strict; and the operation of the laws also much fortified by the "steady habits" of the people, — but in this respect the laws of all the New England States have a similarity, and by mentioning a few of those of Massachusetts, a conception may be formed of those of the other States. Bribery entails a perpetual disqualification for office; gamblers may be bound to good behavior, and a person who kills another in a duel is not only hung, but dissected. "Any person of able body and not otherwise necessarily prevented, who shall fail to attend on Sunday some place of public worship for the space of three months, is liable to a fine of 10 shillings," and tything-men, who are a kind of *Censores Morum*, are bound by oath to give information of all who travel unnecessarily on the Sabbath, and may enter on that day the public houses, to see that order and propriety are observed. Their authority is, however, chiefly exercised in the remote towns, in strictly watching the demeanor of the younger people at church or meeting, where the least levity is sure to bring down an immediate reprimand; it is considered highly disreputable to give this officer occasion either to "knock" or to "speak out." There are penalties for every profane oath, of from one dollar to two dollars, and for the subsequent offences, the penalties are much increased.

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* The following are extracted from the old code called the *Blue Laws* of Connecticut, and some records of the ancient Courts.

'*It is ordered by this Courte, and authority thereof*, That no person or persons licensed for common interteinment, shall suffer any to bee drunken, or drinke excessively, viz. above halfe a pinte of wyne, for one person, at one time, or to continue tipling above the space of halfe an houre, or at unseasonable times, or after nine of the clock at night, in or about any of theire howses, on penalty of five shillings for every such offence; and every person found drunken, viz. so that hee bee thereby bereaved or dissabled in the use of his understanding, appearing in his speech or gesture, in any of the said howses or elsewhere, shall forfeitt ten shillings; and for excessive drinking, three shillings foure pence; and for continuing above halfe an houre, tipling, two shillings six pence; and for tipling at unseasonable times, or after nine o'clock at night, five shillings, for every offence in these perticulars, being lawfully convicted thereof; and for want of payment, such shall bee imprisoned untill they pay, or bee sett in the stocks, one houre or more, in some open place, as the weather will permitt, not exceeding three houres at one time; provided, notwithstanding, such licensed persons may intertein seafaring men or land travellers in the night season, when they come first on shoare, or from theire journeye, for theire necessary refreshment, or when they prepare for theire voyage or journeye the next day early, so there bee no dissorder amongst them, and allso, strangers and other persons, in an orderly way, may continue at such howses of common interteinment during meal times, or uppon lawful business, what time theire occassions shall require.

And it is allso ordered, That if any person offend in drunkenness, excessive or long drinking, the second time, they shall pay double fynes; and if they fall into the same offence the third time, they shall pay treble fynes; and if the parties bee not able to pay theire fynes, then hee that is found drunken shall bee punished by whipping, to the number of ten stripes; and hee that offends by excessive or long drinking, shall bee put into the stocks for three hours when the weather may not hazzard his life or limbs; and if they offend the fourth time, they shall bee imprisoned untill they put in two sufficient sureties for their good behavior.

It is ordered by this Courte, and authority thereof, That every person of the age of discretion, which is accounted fourteene yeares, who shall wittingly and willingly, make or publish any lye, which may bee pernicious to the publique weal, or tending to the dammage or injury of any perticular person, to deceive and abuse the people with false news or reportes, and the same duly prooved in any courte, or before any one magistrate, who hath hereby power graunted, to heare and determine all offences against this law, such persons shall bee fyned for the first offence, ten shillings, or if the party bee unable to pay the same, then to bee sett in the stocks so long as the said courte or magistrates shall appointe, in some open place, not exceeding three houres; for the second offence in that kinde, whereof any shall bee legally convicted, the summe of twenty shillings, or be whipped uppon the naked body, not exceeding twenty stripes, and for the third offence that way, forty shillings, or if the party bee unable to pay, then to bee whipped with more stripes, not exceeding thirtye; and if yett, any shall offend in like kinde, and bee legally convicted thereof, such person, male or female, shall bee fyned ten shillings at a time, more then formerly, or if the party so offending, bee unable to pay, then to be whipped with five or six stripes more then formerly, not exceeding forty at any time: And for all such as being under age of discretion, that shall offend in lyinge contrary to this order, theire parents or masters shall give them due correction, and that in the presence of some officer, if any magistrate shall so appointe; provided allso, that no person shall be barred of his just action of slander, or otherwise, by any proceeding uppon this order.

It is ordered by this Courte and authority thereof, That no master of a familye shall give interteinment or habitation to any younge man to sojourne in his familye, but by the allowance of the inhabitants of the towne where he dwells, under the penalty of twenty shillings per week: *And it is allso ordered*, That no young man that is neither married, nor hath any servant, nor is a publique officer, shall keepe howse by himselfe, without the consent of the towne, for, and under paine or penalty of twenty shillings a week.

And it is allso ordered and declared, That no person whatsoever, male or female, not being at his or her owne dispose, or that remaineth under the government of parents, masters or guardians, or such like, shall either make or give interteinment to any motion or sute, in way of marriage, without the knowledge and consent of those they stand in such relation to, under the severe censure of the courte, in case of delinquency not attending this order; nor shall any third persons intermeddle in making any motion to any such, without the knowledge and consent of those under whose government they are, under the same penalty.

It is ordered and by this Courte decreed, That if any person within this jurissdiction shall sweare rashly and vainely, either by the holy name of God, or any other oath, and shall sinfully and wickedly curse any, hee shall forfeitt to the common treasure, for every such severe offence, ten shillings:

It is ordered by the authority of this Courte, That no person under the age of twenty-one years, nor any other, that hath not already accustomed himselfe to the use thereof, shall take any tobacko, untill hee hath brought a certificate under the hands of some who are approved for knowledge and skill in phisick, that it is usefull for him, and allso, that hee hath received a lycense from the courte, for the same. And for the regulating of those, who either by theire former taking it, have, to theire owne apprehensions, made it necessary to them, or uppon due advice, are persuaded to the use thereof.

It is ordered, That no man within this colonye, after the publication hereof, shall take any tobacko, publiquely, in the streett, highways or any barne yards, or uppon training days, in any open places, under the penalty of six-pence for each offence against this order, in any the perticulars thereof, to bee paid without gainsaying, uppon conviction, by the testimony of one witness, that is without just exception, before any one magistrate. And the constables in the several townes, are required to make presentment to each perticular courte, of such as they doe understand, and can evict to bee transgressors of this order.

At a Court held at New-Haven, A. D. 1643.

Andrew Low, jun. for breaking into Mr. Ling's house, where he brake open a cupboard, and took from thence some Strong Water,* and 6d. in money, and ransackt the house from roome to roome, and left open the doors, for which fact being committed to prison brake forth and escaped, and still remains horrible obstinate and rebellious against his parents, and incorrigible under all the means that have been used to reclaim him. Whereupon it was ordered that he shall be as severely whipt as the rule will bare, and work with his father as a prisoner with a lock upon his leg so that he may not escape.

* *Rum.*

Dancing and reveling in public houses, is attended with a fine of 30 shillings on the proprietor, and of 6 shillings on each of the company. All gaming debts are void; and to win over 20 shillings renders the winner liable on indictment to pay double the sum to the poor of the town, and incapacitates him from holding office for a year. It is penal to play at cards, dice, or billiards in a public house, or even "to expose to view any of the implements aforesaid, or for a person to be sitting at any table with any of the said implements before him." It is provided, that the following description of persons be shut up in the "house of correction," viz. all rogues, vagabonds, and idle persons, going about begging, or using any subtile craft, juggling or unlawful games or plays, feigning themselves to have knowledge in physiognomy, palmistry, or pretending that they can tell destinies or fortunes, or discover lost or stolen goods, common pipers, fiddlers, runaways, stubborn servants, or children, common railers, or brawlers, and such as neglect their callings or employments, &c. &c.

The same act provides, "that no negro or African, who is not a citizen of some of the United States," or a subject of the Emperor of Morocco, shall tarry longer than three months in the Commonwealth, on penalty of being committed to the house of correction, and whipped, not exceeding ten stripes, and ordered to depart in ten days. It is provided, also, to guard against all further needless delays on the part of the African, "that if he shall not so depart, the same process shall be had, and punishment inflicted, and so *toties quoties*." It is proper to add, however, that these laws, though unrepealed, are, in point of fact, obsolete. It is enacted, in a better spirit, that the overseers of the poor "shall provide for strangers in distress." The poor of a town are, however, often set up at auction in the country, for the term of a year; that is, the lowest bidder, or he that will support them for the least sum, takes them or any of them, for that term. This is disgraceful; though it is not said that the poor are sold, but that they are "bid off."

26. *History*. Driven from England by persecution, the Puritans came to America, and laid the foundation of the Plymouth colony in 1620. This was the beginning of the settlement of New England. The colonies of Rhode Island and Connecticut were peopled almost entirely from Massachusetts, and the governments of N. Hampshire and Maine were, in the early times, united to that settlement. Vermont had a somewhat different origin, and was settled partly by the way of the river Hudson and Canada. The first colonists of New England encountered a powerful opposition from the Pequod and Narraganset Indians, who inhabited Rhode Island and Connecticut. In 1637, the colonies of Massachusetts, Plymouth, and Connecticut united their forces in a war against the Pequods, and a vigorous campaign was carried on, in which the Indians were defeated in several battles, and one of their fortified towns was taken and burnt. These misfortunes struck the savages with terror, and for nearly 40 years afterwards, they gave no molestation to the English settlers.

It was not long after the preceding events, that the New England colonies again united for their common defence. In 1643, Massachusetts, Plymouth, Connecticut, and New Haven entered into a league, offensive and defensive against the Dutch, French, and Indians, who menaced them with hostilities. But the most memorable occasion upon which they acted in concert, was that of Philip's war. Philip, or Metacom, as he was called by his own people, was an Indian chief of great courage and talent, and the deadly enemy of the whites. By his intrigues and persuasions, he succeeded in forming a confederacy for the extirpation of the English settlers. In the summer of 1675, the war broke out; the frontier towns were suddenly attacked, the inhabitants slaughtered, the houses burnt, and many parts of the country laid waste. These ravages continued the whole summer and autumn, and more than 600 buildings were burnt to the ground. It was late in the year before any sufficient force could be raised to make head against the Indians. In December, an army of a thousand men took the field under Governor Winslow, and marched into the enemy's country.

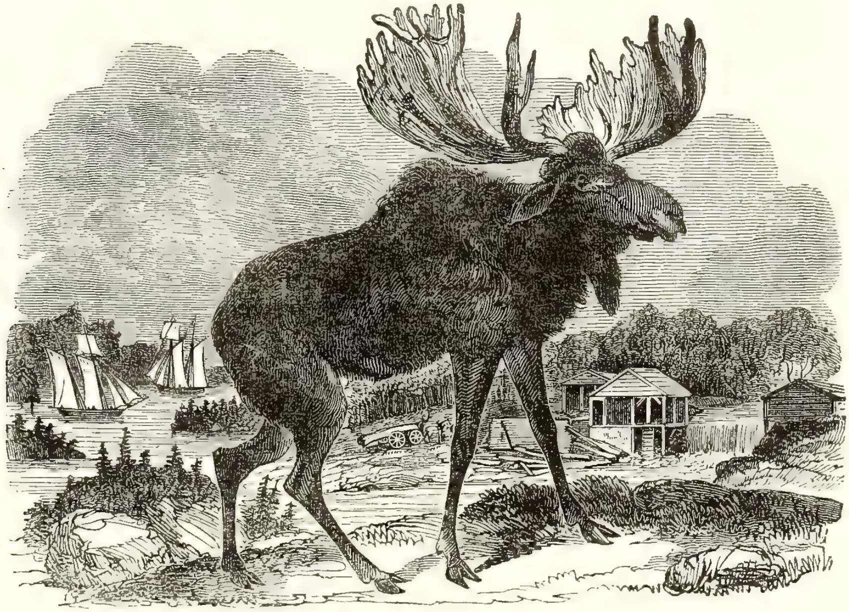
On the 18th of December, 1675, this army reached the strong-hold of the Narragansets, in the western part of the State of Rhode Island; it consisted of a rising ground in the midst of a swamp, strongly fortified with palisades, and an outer defence of thick brush. The weather was severe, and the ground covered with snow. The army surrounded the fort, and began a vigorous attack; the Indians made an obstinate defence, and the battle lasted three hours; the English finally obtained the victory after one thousand Indian warriors had fallen. Philip escaped, and was hunted from one lurking-place to another, but disdained to sue for peace. He was finally shot in a skirmish, and his death put an end to the war.

In 1684, James the Second took away the charters of Connecticut and Massachusetts, and Sir Edmund Andros was appointed Governor of all New England. He landed at Boston, in December, 1686, and began a most insolent and tyrannical administration.

The people endured his arbitrary sway with considerable patience for above two years, but their hatred of his government could not longer be restrained. Andros resided at Boston, when in April, 1689, intelligence arrived of the landing of the Prince of Orange in England, with the intention of dethroning James the Second. The people assembled in the streets, declaiming against the tyranny of the Governor; the drums beat to arms, and in a short time, the town was in a state of complete insurrection. Andros fled into the citadel on Fort Hill, where he was besieged, and forced to surrender. He was deposed from his office and sent to England for trial. The charters of the colonies were now restored, and the separate colonial governments continued till the Revolution. On all great emergencies, however, they united, and deemed the interest of one, the interest of all. Thus accustomed to act in unison, while at the same time they came from the same country, spoke the same language, and entertained similar religious and social views, the inhabitants of New England were woven into one great family. Though now divided into six independent sovereignties, they still recognise the ties which united their fathers, and are seldom found, on subjects of general interest, disunited in opinion

CHAPTER V. STATE OF MAINE.

PHYSICAL GEOGRAPHY.



1. *Boundaries and Extent.* Maine, the most northern and eastern State of the Union, is bounded N. by Lower Canada; E. by New Brunswick, from which it is separated in part by the St. Croix; S. by the Atlantic Ocean, and W. by Lower Canada and New Hampshire. It

lies between 43° 5′ and 48° 12′ north latitude, and between 66° 50′ and 70° 55 west longitude,* having a superficial area of about 33,000 square miles.

2. *Mountains.* The Highlands that separate the waters which fall into the St. Lawrence from those which empty themselves into the Atlantic Ocean, extend from the northern part of New Hampshire to the northeastern extremity of Maine. After supplying the sources of the Kennebec, the Penobscot, and the St. John's they gradually sink down to Cape Rozier on the gulf of St. Lawrence. This range is called the Main Ridge, Height of Land, or Northeastern Ridge, and some of its peaks rise to the height of 4,000 feet; where it is crossed by the new road from Hallowell to Quebec, its elevation is about 2,000 feet.

The mountains within the State lie scattered over the country in irregular groups, but exhibit in some places the form of spurs from the great Alleghany range. The *Bald Mountain* ridge extends about 24 miles between Moose river and the S. W. branch of the Penobscot; its highest summits are 4,000 feet. The *Ebeeme* and *Spencer* mountains bound a portion of the valley of the Penobscot on the S. W. On the opposite side of this valley is *Katahdin* mountain, a rugged and isolated peak, 5,385 feet high, and famous in the traditions of the aborigines, as the residence of superior beings. As very little of this wild region has been scientifically explored, we cannot say much of the geological structure of its mountains. They are chiefly granitic, and are covered with forests.

3. *Valleys.* The great valleys of the Kennebec and Penobscot with their various ramifications, traverse nearly the whole State. The Kennebec valley is much diversified, and exhibits a very uneven surface. In the southern part, the hills are of moderate elevation; in the north they are higher. Towards the coast, the valley is narrow, and the hills press upon the margin of the river; further inland, the heights recede from the stream, and leave in many places level, alluvial tracts along the banks, rising into broad, rounded swells at a distance from the river. Near the confluence of Dead River, the valley becomes more irregular and broken, with scattered mountain peaks, some of which approach the border of the stream. At Moosehead Lake, the valley again expands, and continuing northerly, to the extremity of the lake, it becomes lost in the broad and more level valley of the Penobscot. This last does not differ in its general features from the valley of the Kennebec. Near the coast its surface is elevated and broken. Proceeding northward to nearly the head of tide water, it sinks and expands rather suddenly into a gently undulating country. Further up, it becomes still more level, and in the northern part grows again somewhat undulating. These valleys are in some parts 40 miles wide, and in others narrowed down to the shores of the rivers.

4. *Rivers.* The *Saco* rises in the White Mountains in New Hampshire, enters Maine at Fryeburg, and flows in an irregular course S. E. to the sea; it is 160 miles long, and has numerous falls, which afford excellent mill sites and manufacturing stations. Its chief branches in this State are the Kezer, and the Great and Little Ossipee. The *Androscoggin* rises among the highlands which form the N. W. boundary of Maine, and, descending through a succession of lakes, enters New Hampshire at Errol; it re-enters Maine at Gilead, and flows E. and S. till it joins the Kennebec at Merrymeeting Bay. Its length is 140 miles; the whole course is broken by rapids and falls, which prevent the transportation of anything except timber and logs. The *Kennebec* rises also in the highlands, near the source of the Androscoggin, and flows nearly S. to the sea; falls and rapids render the navigation difficult above the tide at Augusta, to which place it is navigable for vessels of 100 tons, and to Bath for ships, 12 miles from the sea. It is about 200 miles in length.

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* The boundary between Maine and Lower Canada has been for some years a subject of dispute between the American and British governments. In the treaty of peace (1783) which closed the war of the Revolution, the northern boundary of Maine is described in these words. "From the northwest angle of Nova Scotia, viz. that angle which is formed by a line drawn due north from the source of St. Croix river to the highlands, along the said highlands which divide those rivers that empty themselves into the St. Lawrence from those that fall into the Atlantic Ocean to the northwesternmost head of the Connecticut river, &c." This line had been always understood as running north of the river St. John, and carrying the northern boundary of Maine to the 48th degree of latitude; but a few years since, the British set up a claim to one third part of the whole State, by contending that the boundary line ran to the south of the St. John. Agreeably to the treaty of Ghent, the subject was referred to the King of the Netherlands for arbitration, who decided, that "it will be proper to adopt for the boundary of the two States a line drawn due north from the source of the river St. Croix, to the point where it strikes the middle of the channel of the river St. John; thence the middle of the channel of that river, ascending it to the point where the river St. Francis falls into the St. John; thence to the middle of the river St. Francis, ascending it to the source of the most southwesterly branch," &c. By this decision, about two sevenths of the territory in dispute was awarded to the British, amounting to about 2,000,000 of acres. But this decision was rejected by the United States, on the ground, that the arbitrator was not empowered to propose a new line, such as might seem to him convenient, but was authorized only to decide which of the conflicting claims was right and just.

The *Penobscot* has its source in the highlands; the main river, or Great West Branch, is formed by two streams, which unite after a course of 30 miles, and flow over steep falls and rapids into Chesuncook lake; from this place the river passes over a succession of falls and rapids, and through several small lakes southeasterly to Nicketou or the Grand Forks, where it unites with the main E. branch. The E. branch rises in the rear of Katahdin, and flows nearly south to the junction; its current is rapid, but less obstructed by falls than the W. branch. From Nicketou the Penobscot flows S. E. 12 miles, where it receives the Madawamkeag, its principal N. E. branch; thence S. W. 25 miles to the mouth of the Piscataquis; thence S. 20 miles to Oldtown falls, at the ancient Indian village of that name; in this distance it embraces more than 100 islands. From Oldtown is a succession of fall and rapids 12 miles to the head of navigation at Bangor, whence it is navigable for large vessels to the sea, 50 miles. Besides the branches already mentioned, it has many others navigable by rafts, and abounding in mill sites. The central position of the Penobscot, the facility of communication between it and the waters of the St. John, the Kennebec, and the St. Croix, and the valuable character of the country on its borders, render it of great importance to the State.

The *St. John* gathers up all the waters of the northern part of the State, receiving from the water-shed between Maine and Canada, the St. Francis and the Madawaska, and from the south the Allagash and the Aroostook. The *Walloostook* is the head stream of the St. John, and flows to the N. E. The *St. Croix* or *Schoodic* forms a part of the E. boundary, and is little navigable except by rafts; most of it consists of a chain of small lakes. From Calais to the sea, 30 miles, its navigation is unobstructed.

5. *Lakes.* *Moosehead* lake, the largest in New England, is the source of the E. branch of the Kennebec, and is 50 miles long and 10 or 15 broad. *Umbagog* lake is partly in N. Hampshire, but mostly in this State; it is 15 miles long, and 10 broad. *Chesuncook* lake is 20 miles long and 3 broad. *Sebago* pond, near Portland, is 12 miles in length. The *Schoodic* and *Grand* lakes in the east, and the *Moosetogmaguntic* in the west, are large lakes. There are also a vast number of other small lakes.

6. *Islands.* Most of the coast is thickly strewn with islands. The largest is *Mount Desert*, on the W. side of Frenchman's Bay; it is 15 miles long and 12 broad. Many fine islands lie in Penobscot Bay, as *Long Island*, on which is the town of Islesborough; the *Fox Islands* containing the town of Vinalhaven; and *Deer Isle*, on the E. side of the bay, about 8 miles from Castine.

7. *Marine Waters.* This State has many spacious bays and fine harbors. *Penobscot Bay* is the largest of these; it forms the estuary of the river of that name, and is 30 miles in extent from N. to S. Its width from the Isle of Holt to Owl's Head is 18 miles; it affords great facilities for navigation, and presents a variety of beautiful landscapes. *Casco Bay*, between Cape Elizabeth and Cape Small Point, extends 20 miles, and embosoms more than 300 islands, most of which are under cultivation. *Portland Harbor* is on the W. side of this bay. *Passamaquoddy Bay*, forming a part of the boundary between Maine and New Brunswick, is 6 miles in length, and 12 wide; it contains many islands, and receives the St. Croix river. Small harbors are numerous, and the shores are rocky and bold.

8. *Climate.* The winters are severe. In the interior, and even within 10 miles of the sea coast the ground is usually covered with snow three or four months in the year, and in the forests of the central parts nearly 5 months. In the mountainous regions the snow is often 5 feet deep. Towards the sea it is frequently broken up by rains and thaws, which render traveling very difficult; but in the forests the steady continuance of the snow enables the woodman to fell and transport to the rivers in sledges, immense quantities of timber. Along the seacoast the winters are irregular, and wherever the country is cleared, a corresponding improvement in the climate is generally observable. The summers are hot, but not sufficiently long to be altogether favorable to the cultivation of maize. In most parts of Maine, however, the vegetable productions of the Northern States thrive, though early frosts sometimes do great damage to the crops. The extreme season of vegetation is comprised between the 21st of April and the 16th of October; the season of vigorous and uninterrupted vegetation is from June 3d to September 12th. The air is pure and healthy, although during the spring and early part of summer, the thick fogs in the eastern parts are very disagreeable; the northeasterly winds which are prevalent during this season, constitute one of the worst features of the climate. The spring is commonly rainy, and the winters tempestuous; but during summer, the air is serene. The coldest wind is that from the N. W., the uncommon keenness of which is indeed well known over all New England

9. ***Soil.*** The fertility of the soil in the most favorable situations, is thought to equal that of any part of the Northern States ; its quality, however, is not uniform. On the coast it is generally poor ; between the Kennebec and Penobscot, and in the valley of the St. John, it is generally excellent ; among the mountains in the N. W. it is very inferior. The most fertile counties are estimated to produce 25 bushels of grain to the acre, averaging the different sorts, and the poorest, 7 bushels ; but this estimate is thought to indicate bad husbandry rather than the true powers of the soil. Land is obtained so cheaply in this State, that most cultivators undertake the management of more than they can till to advantage.

10. *Natural Productions of the Soil.* The most remarkable and important production is that of forest trees ; a large portion of the country may be considered as one great forest. White Pine is abundant in the northern part ; Hemlock and Spruce abound everywhere ; White and Red Oak are met with on the coast ; the Butternut and Walnut are more rare ; the Beech, Maple, and Ash, are also plenty, and Birch of many sorts is in great abundance. Fruit-trees, such as the Apple, Pear, Plum, and Cherry, succeed well, but the Peach has generally failed ; it has, however, been successfully cultivated in some situations, at 10 or 12 miles distant from the sea. The land in this State is well adapted to grazing, and the number of neat cattle and sheep annually produced, form a considerable proportion of its valuable productions. Peat exists abundantly in swamps and bogs, but the cheapness of wood for fuel, renders it of little importance.

11. *Minerals.* Iron is found in all parts of the State, but few mines have yet been worked. Lead occurs in small quantities. Lime is most abundant at Lincolnville, Thomaston, and Camden, where it is burnt in great quantities for exportation. In Thomaston the rock is principally a beautiful bluish marble, much of which is cut and polished for ornamental purposes. An extensive mass of fine statuary marble forms a part of the bed of the west branch of the Penobscot. Marble is also found at Brunswick, and lime is burnt at Phippsburg ; 1,000,000 casks are annually exported from the State. Granite and gneiss, suitable for building, are found in most parts of the State ; quarries have been opened in Hallowell and Augusta, upon the shores of Penobscot Bay and in other places ; most of these are easily accessible. Slate occurs extensively between the Kennebec and St. John, and is worked both for roof and writing slate, and found to be of superior quality.

12. *Face of the Country.* In a general and comprehensive view, the surface of this State may be considered as moderately hilly ; a comparatively small part swells into mountains, some of which rise above the region of ordinary vegetation, but most of them will admit of some degree of cultivation. Near the coast, and along the banks of many of the rivers, are plains of small extent ; the remainder of the settled portion of the country is infinitely diversified with hill and dale, in all their various forms.

POLITICAL GEOGRAPHY.

1 *Divisions* This State is divided into 13 counties.

Counties.	*County Towns.*	*Counties.*	*County Towns.*
Oxford, - - -	Paris.	Piscataquis, - -	Dover.
York, - - -	Alfred.	Somerset, - -	Norridgewock.
Cumberland, - -	Portland.	Penobscot, - -	Bangor.
Kennebec, - -	Augusta.	Waldo, - -	Belfast.
Franklin, - -	Farmington.	Hancock, - - -	Ellsworth.
Lincoln, - -	Wiscasset. Topsham. Warren.	Washington, - -	Calais.
		Aroostook, - -	Houlton.

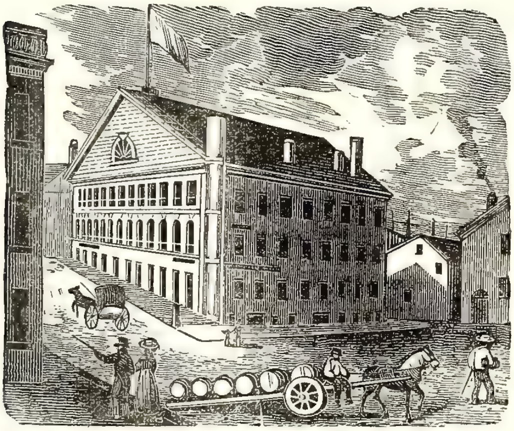
The seat of government is Augusta. The towns are about 300 in number, and the whole population of the State is 500,000. There are also Plantations which have some of the privileges of incorporated towns, but, possessing less than 1,500 inhabitants, are not singly entitled to representation in the State legislature. Several plantations may unite and choose a representative, when their collective numbers equal 1,500.

2. *Canals.* *Oxford canal* extends from Sebago Pond to the sea at Portland. It is 20½ miles in length, and opens an extent of water communication exceeding 40 miles. The articles brought down this canal, are timber, wood, stone, ashes, and country produce.

3. *Roads.* The roads in Maine are bad, and traveling of course difficult, except for a short time at certain seasons. At the breaking up of winter, both on the seacoast and in the interior,

the ground being loosened by the frosts and melting of the snow, and the heavy rains of the season, render the roads almost impassable; the same effect is produced by the rain at the approach of winter. The result is, that in the country bordering on the sea, the communication is uniformly good only for a few months in summer, and a few weeks in the winter. In the interior, it is good for about the same length of time in the summer, and with comparatively little interruption for an equal space in winter. The communication between the interior and the seaboard is subjected in some degree to the same interruptions in winter as are experienced along the coast. At a distance inland, the deep snows of winter afford a foundation for the conveyance of heavy commodities, which supplies for a time the want of artificial roads.

4. *Towns.** *Portland*, the former capital of Maine, is very pleasantly situated on a peninsula in Casco Bay; it has a safe harbor, which is easy of access, and seldom frozen. The harbor is defended by forts Preble and Scammel. At the east of the town is fort Burrows, in the rear of which are some other works. There are 2 stone lighthouses on Cape Elizabeth, near the entrance of the harbor; and on the N. E. side of the town stands a lookout, 70 feet in height, which affords a fine prospect of the town, harbor, and islands. Portland is much the largest town in Maine, and far superior to any other in the State in commerce and wealth. It contains a neat brick court house, an almshouse, city hall, a market house, several banks and insurance offices, an academy, various schools, public and private, an athenæum, exchange, an apprentices' library, and 15 churches. The custom-house is a fine building with a front of stone. The largest building is the mariners' church, a handsome edifice of stone in front, and comprising, besides a hall for religious exercises, many rooms for schools, libraries, &c. The basement story is occupied for stores, and a part of the building serves for a market house.


Mariner's Church.

The city is generally well built, a great number of the buildings being of brick, and many of them elegant. The centre is low, but at the extremities are high hills. The White Mountains, at 60 or 70 miles' distance, can be seen from the city. The open harbor of Portland and its great mercantile capital, attract to it the trade of a wide region; the territory, to which it affords the principal market, contains nearly 2,000 square miles. The shipping of this port amounts to nearly 60,000 tons. The coasting tonnage is about 20,000 tons, much of the foreign imports at this place being carried coastwise to Boston and other markets. Besides the coasting trade and the fisheries, an extensive foreign commerce is carried on principally with the West Indies and Europe. Portland was formerly included in the town of Falmouth, and in 1775 was burnt by the British; it was incorporated as a town by its present name in 1786, and as a city in 1832. Population, 16,000.

Gorham, 10 miles from Portland, is a flourishing manufacturing town, with 3,000 inhabitants.

Brunswick, on the south side of the Androscoggin, is a flourishing and handsome town, containing a college, a Congregational, and a Baptist church, a printing office, a cotton and woolen manufactory, and a number of valuable mills. The fall of the Androscoggin at this place affords some of the best mill sites in the country.† Ship-building is also carried on. Population 4,200.

Bath, on the west side of the Kennebec, 12 miles from the sea, has a pleasant situation and great advantages for commerce, being at the head of winter navigation. Much ship-building is done at this place ; the shipping of the district of Bath amounts to 40,000 tons ; this includes the whole of Kennebec river. Bath contains 2 academies, 2 banks, and 4 churches. The river here is wide and seldom frozen. Population 4,600.

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* The counties in this and the other New England States, are subdivided into townships, which are commonly called towns. They are incorporated by the legislatures of the respective States, and have a distinct police, conducted by officers elected annually by the inhabitants. The States of New York, New Jersey, Pennsylvania, Ohio, Indiana, Michigan, and Arkansas, are also subdivided into townships, in the other States, in which no such subdivision is known, the word *town* is used in its proper sense for a collection of houses.

† A species of the emerald, or the beryl of Jameson, which occurs often in the granite of this part of the country, is found in the neighborhood of this place, accompanied with crystals of a pure, rich green, which obviously belong to the precious emerald. — *Cleaveland's Mineralogy*

Wiscasset, on the west side of Sheepscot river, is a maritime town, and has an open, safe, and capacious harbor. Its shipping amounts to 11,660 tons ; the trade is chiefly in lumber and wood. This town has a court house, jail, church, academy, insurance office, and 2 printing offices. Population 2,250.

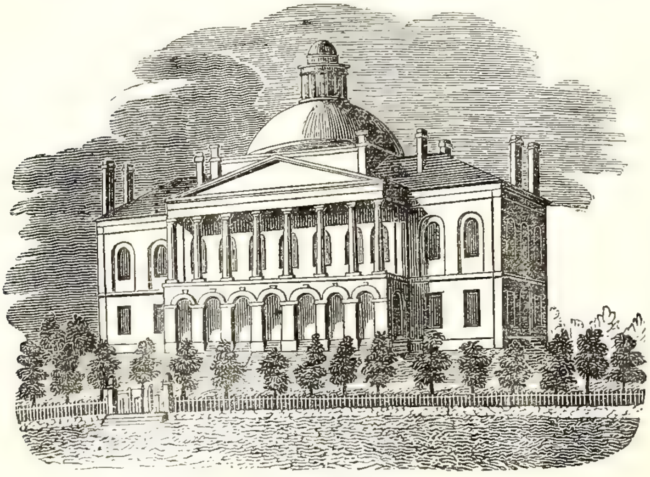
Waldoboro' is a considerable town, 22 miles east of Wiscasset, at the head of Muscongus bay. It has 40,000 tons of shipping, principally employed in the coasting trade ; its chief articles of commerce are lumber and lime. Population 3,500.

Thomaston, on Penobscot bay, is one of the principal towns in the State. Great quantities of limestone are found here, and most of the lime exported from Maine is manufactured at Thomaston. Marble of excellent quality is also quarried, and much granite is dressed for exportation. A State prison has been built here on the plan of the Auburn and Sing Sing prisons. Population 5,300.

Castine, on the east side of Penobscot bay, a little below the mouth of Penobscot river, is situated on a promontory, and has a large and excellent harbor, open at all seasons. In time of war this place might become important as a military station, being a situation of great natural strength, and capable, with proper fortifications, of being made an impregnable fortress. Placed at the entrance of the Penobscot, it commands the outlet of that river, and the whole bay ; and were an enemy in possession of it, he would, in addition to this, be enabled to control the whole extent of seacoast, from the Penobscot, eastward. The trade of this place is considerable. Castine was taken by the British during the late war, but surrendered at the peace of 1814. Population 1200.

Bangor, incorporated as a city in 1834, and the second town in the State, stands on the Penobscot, 35 miles above Castine, at the head of tide water, and has a fine commercial situation, although the river below is frozen in the winter to the distance of 12 miles ; it trades much in lumber. There is a Theological Seminary here. There are in Bangor and the vicinity upwards of 250 saw-mills, cutting about 200,000,000 feet of boards, all of which is shipped at Bangor ; the annual value of the lumber shipped hence exceeds 1,000,000 dollars, about 1,200 vessels being engaged in the trade. Population 10,000. A railroad extends to Orono, 12 miles above, which contains numerous saw-mills, and a population of 4,000. *Frankfort*, below Bangor, is a thriving town, with 3,300 inhabitants.

Hallowell, on the Kennebec, 40 miles above its mouth, principally on the west side of the river, and in the midst of a fertile district, has within a few years increased rapidly, and is now very flourishing. It has several churches, an academy, a bank, 4 printing offices, mills, many well-built stores, and there are 10 wharves on the west bank of the river. Loaded vessels of 150 tons come up to the wharves. The gneiss quarries of Hallowell afford a valuable building stone, known as Hallowell granite. The buildings of this town are principally upon 3 streets on the west side of the river ; 2 of them running parallel to it, and the other crossing them. To the west a high hill extends from north to south the whole length of the village, on the slope of which 3 new streets are laid out, and 2 others intersecting them. Hallowell exports granite, beef, pork, ashes, grain, lumber, &c. Pop. 5,000.

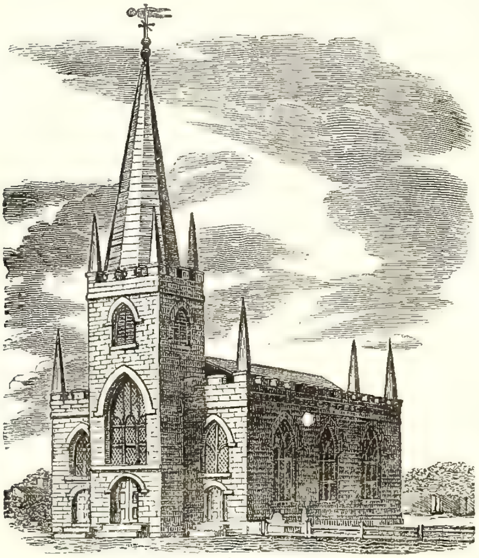

State House.

Augusta, on the Kennebec, 2 miles above Hallowell, is the capital of the State. It is a pleasant and flourishing town, and contains court house, State house, State insane hospital, a female academy, several banks, and an elegant bridge across the Kennebec, consisting of 2 arches, each of 180 feet span. The new State house is built of granite (gneiss), and is a very handsome edifice. It contains a spacious hall for the House of Representatives, and 2 smaller ones for the Senate and the Council. On the side of the river opposite to the State house, is the arsenal belonging to the United States, consisting of about a dozen buildings of stone, some of which are large and handsome. This place has considerable trade, and the river below is navigable for vessels of 100 tons. The growth of Augusta has of late been very rapid, and the population has been doubled during the last 10 years. Besides its trade in lumber and produce, Augusta has the advantage of an almost unlimited water power, and a dam has been thrown across the river at an expense of 300,000 dollars. The length of this great work is 600 feet, and it is constructed in the most solid and durable manner. Population 6,500.

York, on the coast, 42 miles S. W. of Portland, is one of the oldest towns in the State, and is a place of some trade. Population 3,000.

Saco, on the N. E. side of the river of that name, is well situated for commerce, of which it enjoys a considerable portion ; the principal part of the town is at Saco Falls. These falls have a descent of 42 feet, and offer a very beautiful view ; just below the falls is a fine basin where vessels may load. There is a beach in the neighborhood, which is much resorted to in the summer ; it has a hard, smooth surface, 4 miles in extent, and offers a fine view of the ocean. Saco has several manufactories and saw-mills. Population 4,300.

Kennebunkport, near the mouth of the river of that name, 25 miles S. S. W. of Portland, has considerable trade and fisheries ; the principal export is timber. *Kennebunk* is a distinct town, about 4 miles distant, with some mills. The harbor is pretty good, but is obstructed by a sand bar. The population of both towns is 5,000. *Belfast*, 12 miles N. W. of Castine, has a fine situation and good harbor, and is a flourishing town. Population 4,000. *Waterville*, on the Kennebec, 18 miles above Augusta, is finely situated at the head of boat navigation, opposite Teconic falls, which present a beautiful cascade. It has a college under the direction of the Baptists, and a Universalists' Institute. Population 3,000. *Vassalborough*, between Waterville and Augusta, is a large agricultural town, having some interior trade, and several large tanneries. Population 3,000. *Norridgewock*, on the Kennebec, is a pleasant and thriving town, with a bridge across the river. Population 2,000. *Gardiner*, on the west side of the Kennebec, 4 miles south of Hallowell, is a flourishing and pleasant town, containing a cotton manufactory, iron works, a plaster mill and several other valuable mills. It has 2 churches, 1 of which is the chief ornament of the town, being an elegant Episcopal church built of granite in the Gothic style. Population 5,000. *Warren*, on St. George's River, 30 miles east by north from Wiscasset, is a considerable town, and contains an academy. Population 2,200.



Episcopal Church, Gardiner.

Eastport is situated on the most eastern limit of the United States, on Moose Island, in Passamaquoddy Bay, at the mouth of the St. Croix : its harbor is very large and commodious. The wharves of the town are built nearly 40 feet high, on account of the great rise of the tide in the Bay of Fundy, which is commonly 25 feet. Eastport has a thriving commerce in fish, lumber, &c., the shores of the island offering every facility for the curing of fish, and loading of lumber and other articles of commerce. A handsome bridge connects the island with the mainland. The shipping owned at this place, Calais, and Lubec, which together constitute the port of Passamaquoddy, amounts to 15,000 tons. Population 5,000. *Lubec*, 3 miles south of Eastport, has a fine open harbor, safe from all winds. The principal village is on Flag's Point, and contains a custom-house, and many well built wharves. On Quoddy Head, the east point of the township, is a lighthouse. Population 4,200. The trade is extensive. *Calais*, at the head of tide on the St. Croix, contains about 50 saw-mills, and is a growing and prosperous place. Population 3,100. *Machias*, *Machiasport*, and *East Machias*, are 3 villages on the river of the same name, within a few miles of each other, containing numerous saw-mills, and carrying on an active trade in lumber. Population 3,500. *Ellsworth* is a very pleasant and growing town on Union river, with 2,200 inhabitants.

5. *Agriculture.* The agricultural products of Maine are maize, wheat, oats, barley, rye, pease, beans, potatoes, flax, hops, &c. ; these not only furnish directly the food of the inhabitants, but support a numerous stock of horses, oxen, cows, sheep, and swine, which form an important article of exportation. In a great part of the State, a negligent and wasteful mode of agriculture is pursued, and poor crops are the consequence ; but there are many judicious and skilful cultivators, and the business is manifestly improving. The crops of maize in different parts of the State vary from 30 to 50 bushels per acre ; wheat, 15 to 40 ; rye yields rather more ; and hay from 1½ to 3 tons. The amount of tilled land in this State, is about 150,000 acres, yielding, in 1838, about 1,200,000 bushels of wheat, 1,630,000 of Indian corn, &c. ; hay is one of the most important items of agricultural produce. Land is very easily obtained by cultivators ; in some instances it has been customary for the landlord to furnish the implements, cattle, half the seed, and pay half the taxes, and to receive half the products. It is considered that, in general, one half the crops, deducting one half the value of the seed and taxes, pays the expense of cultivation The agriculture of the western counties furnishes the principal exported articles ; the eastern counties are more devoted to commerce and lumbering. The whole amount of improved land is reckoned at little more than a 20th part of the whole State.

6. *Commerce.* From the earliest settlement of Maine, its inhabitants were a commercial people, and their trade by sea is now very extensive. Their commerce consists chiefly in exports of timber, masts, spars, boards, plank, scantling, staves, wood, bark, dried and pickled fish, beef, pork, live stock, wool, butter, cheese, cider, hay, candles, soap, shoes, boots, nails, bricks, lime, slate, granite, and marble. Most of these articles are shipped coastwise, but a considerable trade is carried on likewise with New Brunswick, Nova Scotia, the West Indies, and Europe. Many of the foreign cargoes imported into this State, are immediately shipped to Boston, New York, and other places. Maine is now the fourth State in the Union for commerce. The shipping registered and licensed for foreign and coasting trade amounts to nearly 300,000 tons. The amount of exports, inclusive of exports coastwise, may be estimated at 12,000,000 dollars. The coasting trade forms the chief part of the commerce of the State.

7. *Manufactures.* In those branches of manufacture which are indispensable to agriculture, some progress has been made in this State, but there are few large manufactories ; in the list of articles manufactured may be named woolen and cotton cloths, nails, leather, iron castings, paper, candles, soap, rum, whiskey, &c. The annual value of manufactures exclusive of ship building, is estimated at 10,000,000 dollars.

8. *Fisheries.* The coast of Maine swarms with fish ; such as cod, pollock, herring, mackerel, alewives, salmon, &c. The fisheries are conducted partly by boats and small vessels near the shore, and partly by large vessels employed in the Bank and Labrador fisheries half the year, and the rest of the time in the coasting trade. The fishing craft amounts to 20,000 tons ; the fish annually taken are estimated in value at 1,200,000 dollars. In Passamaquoddy Bay and the neighborhood, vast quantities of herring are taken, by scooping them up with hand nets. This fishing is carried on during very dark nights, and often displays the most striking and picturesque appearance to the spectator on shore. The fishermen go in small, light boats, each bearing a flaming torch. The boats row with great swiftness through the water, and the herring, attracted by the glare of the light, crowd after the boats in such numbers, that those stationed in the stern for this purpose scoop them up by thousands. The fish frequently throng together with such eagerness as to throw one another out of the water. When there are twelve or fifteen boats at a time upon the water, with the strong red glare of their birchen torches reflected from the surface, the lights swiftly crossing and recrossing each other, now suddenly disappearing, and again appearing among the islands, as if by enchantment, the whole contrasted with the darkness that shrouds every other object, produces a scene of the most novel and romantic character.

9. *Other Sources of Wealth.* The immense forests in the interior of this State furnish the materials for a great trade in timber, masts, spars, boards, plank, scantling, staves, &c. ; vast quantities of fuel are supplied from this State to Boston, and other seaports in New England. The value of timber annually sawed is 10,000,000 dollars. The felling of timber in the interior districts is generally performed during the winter. The inhabitants unite in small bands,

and in the depth of the coldest season penetrate into the midst of the woods; here they build huts roofed with bark, and, though the ground is covered 5 or 6 feet deep with snow, and the thermometer 15 or 20 degrees below the freezing point, begin their work of felling the trees. These are then cut into logs about 18 feet long, and dragged over the snow by oxen to the banks of the river, and rolled upon the ice. Many thousands of these logs are thus collected, and on the breaking up of the river in the spring they are floated down to the saw-mills. The upper streams being narrow and crooked, the logs sometimes get clogged in immense masses between the banks, to the number of 100,000. Such an obstruction is called a *jam*, and the business of removing it is often highly dangerous. This is done by cutting away the foremost logs, when the whole mass, with the accumulated volume of water above it, rushes down the river, tearing away every thing in its progress. When the logs arrive at the mills, each owner selects his property, the logs being previously marked. The *lumberers* or *river drivers*, as these people are called, often earn five or six dollars a day, but no course of life is attended with greater hardships, and nothing can be more destructive to health and morals. The winter snows are little to endure in comparison with the penetrating cold of the snow water in which the lumberer is often immersed from head to foot. To stimulate the frame and enable it to endure the toil and exposure, these men take immoderate quantities of ardent spirits, and habits of intemperance are the consequence. Premature old age, and shortness of days are too frequently the fate of a lumberer; but notwithstanding all the toils and dangers of such a life, those who once adopt it seem fond of it. The money they so laboriously earn, is spent with a thoughtless extravagance. After selling and delivering their timber, they pass some weeks in idle indulgence. At the approach of winter, they return to the woods and resume their labor.

Lumbering.

10. *Inhabitants.** The seacoast of Maine is the most thickly inhabited; the northern part is still a wilderness, frequented only at times by hunters and lumbering parties; new settlements are forming every year, yet so great is the extent of wild land, that a long time will elapse ere the whole surface of the State will be covered with inhabitants. For the same reason, the population is nowhere very dense, compared with the other New England States. The inhabitants, with the exceptions already noticed, may be designated as hardy, industrious, frugal, and enterprising; their occupations are almost exclusively agriculture, commerce, and taking and curing fish. The state of individual wealth is that of a general mediocrity; large fortunes and extreme indigence being equally uncommon; the means of a comfortable subsistence are within the reach of all. The population of Maine was,

in 1800,	151,719	in 1830,	399,462
1810,	228,705	1840,	
1820,	298,335		

11. *Indians.* A remnant of the aborigines, known by the name of the *Penobscot Indians*, still maintain an existence in this State, at a spot called *Indian Old Town*, on the Penobscot River, 12 miles above Bangor. They are in number about 300, and have rather increased than diminished of late, which may be ascribed to the exertions of their chiefs in promoting early marriages. These Indians, so far as they pay any heed to religion, are Catholics, and have been for some time under the spiritual direction of a priest of that persuasion. This per-

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* After the capture of Nova Scotia by the English, in 1755, a body of French Catholics, who had resided in that country, and were known as the French Neutrals, took their departure, with the intention of finding some quiet retreat in the remoter lands of the north. They ascended the St. John, and finally settled on the banks of the Madawaska, one of its tributaries. Here they lived, under the government of their priests, in solitude and ignorance, but contented and happy. Though within the boundaries of Maine, as then established, they remained securely buried in the forests for many years, their existence not being recognised, and probably not known by the authorities of the State. The number of these settlers amounts to about 3,000; yet it was not till a recent period, that the State exercised any authority over them

son has also applied himself to the improvement of their temporal concerns, and they now pay some attention to agriculture and the decencies of dress. They dwell mostly in rude wigwams built of logs, bark, or slabs, but some of the tribe have more substantial houses, comparatively neat and commodious ; a few are even painted, but none are large. They live mostly by hunting and making baskets. In the summer, many of them visit the seacoast for the purpose of fishing. They are less addicted to the use of strong liquors than formerly, but preserve all their old attachment to finery and trinkets. Beads and ornaments of silver are worn upon their clothes in every fashion, but their dress in other respects resembles that of the lower orders in our cities ; the women, however, wear blankets. In hunting they use only fire-arms, and are no longer expert with the bow, which is now only the amusement of the children. Birch-bark canoes are in common use with them, and are well constructed ; their basket-work, too, displays considerable neatness. The best conditioned among them are young men, who husband the products of their winter hunts. The priest above mentioned has within a few years established a school, at which they have been taught to write.

At the eastern extremity of the State, in the town of Perry, on Passamaquoddy Bay, is the remnant of the *Passamaquoddy* tribe of Indians. A few years ago, they consisted of about 100 families, but they are now reduced to less than half that number. Their condition is much the same as that of the Penobscots. They are Catholics, and every summer are visited by a Catholic priest ; a protestant missionary from the United States also spends the summer with them. The chief, whose name is Socbason, is an intelligent man, and writes a good letter in English. He is an officer in the church, and is familiarly known by the appellation of Deacon Socbason.

12. *Government.* The government of Maine consists of a Governor, an Executive Council, a Senate, and House of Representatives. The Governor and members of the Legislature are chosen annually ; all inhabitants of twenty-one years of age are voters. The Legislature meets once a year at Augusta. The revenue is derived from a property and poll tax, fees, &c. to public officers, and sales of land. The annual expenditure of the State amounts to 200,000 dollars. Maine sends 8 Representatives to Congress.

13. *Religion.* The various denominations are equally under the protection of the government. The Baptists have 168 ministers, and 15,000 communicants ; the Calvinistic Congregationalists have 120 pastors, and 12,500 communicants ; the Methodists, 115 ministers, and 15,500 communicants ; the Freewill Baptists, 60 congregations ; the Quakers, 30 societies ; the Unitarians, 12 societies ; the Episcopalians, 8 ministers ; the Roman Catholics, 6 churches ; the Sandemanians, 3 societies. There are also some Universalists, 3 societies of Shakers, and 3 of the New Jerusalem church.

14. *Education.* The institutions for this purpose are numerous. *Bowdoin College,* at Brunswick, was incorporated in 1794, but did not go into operation as a college till 1806. It has at present several large brick buildings for the residence of students, and for medical, chemical, and philosophical lectures ; a chapel and library, and houses for college officers. Its library contains 10,000 volumes. It has a cabinet of minerals, and a philosophical and chemical apparatus. The officers are a president and six professors ; a medical school is attached to the college, with 3 professors. The funds of this institution are derived from lands granted by James Bowdoin for its original endowment, other lands granted by Massachusetts and Maine, and an annuity from the latter State. *Waterville College* is under the direction of the Baptist denomination, and has 8 teachers ; the buildings are handsome brick edifices. *Bangor Theological Seminary* was incorporated in 1814. It has 3 professors ; the course of study is 3 years. Its funds have been contributed by private individuals. The *Maine Wesleyan Seminary,* at Readfield, is designed for the education of Methodist preachers. Besides these institutions, there are 30 incorporated academies, mostly aided by grants of land from the Legislature ; each town is also required by law to raise and expend for the support of common schools 40 cents for each inhabitant. About three-fourths of the children of the State, between four and twenty-one years, usually attend the schools.

14. *History.* The civil history of Maine goes, properly, no further back than 1820, when it was separated from Massachusetts and became an independent State. The Plymouth Company attempted a settlement in Maine at the mouth of the Kennebec in 1607, but this proved abortive. The first permanent establishment was made at Saco in 1623. The province was granted to Sir Ferdinando Gorges, who established a government over it in 1639 ; the first general court was held at Saco in 1640, but the province was shortly afterwards united to Mas-

sachusetts. This State was the scene of one of the most remarkable events in the history of the Revolution; this was the march of Arnold and his troops against Quebec, in 1775, across an unexplored wilderness. He set out about the middle of September with a body of 1,000 men; they proceeded up the Kennebec against a swift current, and the frequent obstructions of rapids and cataracts, round which they were obliged to draw their arms, provisions, and boats, by hand. Their course, after this, lay through deep swamps, and over rugged mountains. Such was their incessant toil, that large numbers were overcome with fatigue and sickness, and turned back. The whole of the rear division also became disheartened and returned. Those who proceeded, had soon to suffer the horrors of famine in addition to other distresses; yet they heroically continued their march. Before they reached the highlands, in the neighborhood of Canada, their provisions failed, and such was their extremity, that dogs, the leather of cartridge-boxes, and shoes, were devoured. The troops at last nearly sank under fatigue and hunger; the order of march was broken up and each man sought his own safety. The last morsel of food was consumed, when they reached the neighborhood of a settlement. Arnold with a few of the most vigorous among the troops, now pushed on, and, after 30 miles' march, arrived at a French village on the Chaudière, where relief was obtained. In this expedition, almost unparalleled for the fortitude and suffering which it exhibited, the troops were thirty two days without seeing the abode of man.

CHAPTER VI. NEW HAMPSHIRE.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* New Hampshire is bounded N. by Lower Canada; E. by Maine; S. by Massachusetts; and W. by Connecticut River, which separates it from Vermont. It extends from 42° 41′ to 45° 20′ N. latitude, and from 70° 40′ to 72° 28′ W. longitude; being 168 miles in length from N. to S., and 90 in breadth. It comprises an area of 9,491 square miles, or 6,074,240 acres, including 110,000 acres of water.

2. *Mountains.* Between the Merrimack and Connecticut in the southwest part of this State there extends a ridge from S. to N. called the White Mountain Ridge, the loftiest summits of this are Monadnock, 3,254 feet high, Sunapee, Kearsarge, Carr's Mountain, and Mooshelock, called by a corruption, Moosehillock. This last is 4,636 feet high. Towards the N. of the State, these eminences rise to a much higher elevation, and are known by the name of the White Mountains.

These merit a particular description from their superior height, and the noble and picturesque scenery which they exhibit. They are among the loftiest mountains in the United States, east of the Mississippi. They lie between the Connecticut and Androscoggin rivers on the N. E. and west, and the head waters of the Merrimack on the south, 60 or 70 miles from the coast; yet their white summits are visible for many miles at sea. They extend about 20 miles from S. W. to N. E., and their base is 8 or 10 miles broad. The highest summit is Mount Washington, 6,428 feet above the level of the sea. The best description of these mountains has been given by Dr. Dwight, whose account we shall chiefly follow, using for the most part his own words:

View of Mount Washington.

In passing from the South to Mount Washington, the traveler crosses Mounts Pleasant, Franklin, and Monroe. In the way lie forests and ravines choked with trees, whose branches interlock in such a manner, that it is very difficult to pass through them. Mount Pleasant is easily ascended. Its top, to the extent of 5 or 6 acres is smooth, and gradually slopes away in every direction from its centre. It is everywhere covered with short grass, growing in little tufts to the height of 4 or 5 inches; among these tufts mountain flowers are thinly scattered

The prospect from this summit is beautiful. To the west the eye is dazzled with the splendor of Mount Washington. N. W. are the settlements in Jefferson; W. the course of the Amonoosuc, as though drawn on a map; south, Mooshelock, the Haystack, and Chocorua Peak are discovered. Easterly are towns, mountains, and dark forests. From the foot of this mountain, the ascent is gradual to the top of Mount Franklin. After crossing this and Mount Monroe, the traveler finds himself on a plain at the foot of Mount Washington.

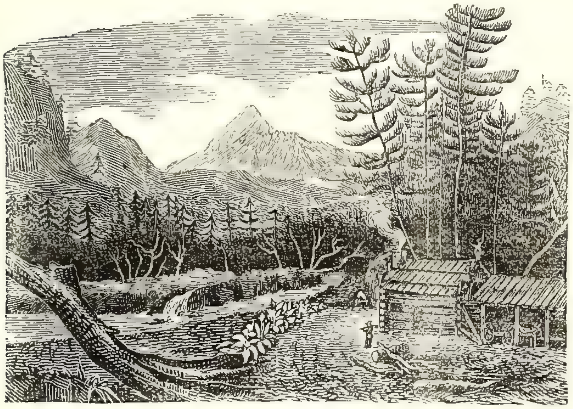
The pinnacle of this eminence rises like an immense pyramid, or some vast Kremlin in this magnificent city of mountains; it is composed of huge rocks of granite and gneiss, piled together in various forms and hues. The first part of the way is through a thick forest of heavy timber. This is limited above by a growth of stunted and gnarled fir trees, 10 or 15 feet in height, which form a belt round the mountain 80 rods wide. These suddenly give place to a growth of short bushes, and then succeeds a bed of thin moss, not sufficient to cover the granite rock and the immense masses of loose stones which form the surface. For more than a mile the ground is entirely destitute of trees, and a few straggling spiders, or little flowering plants are all that the mountain produces. The view from the summit is wonderfully grand and picturesque. Innumerable mountains, lakes, ponds, rivers, towns, and villages, meet the eye on every side.

Near view of the White Mountains, New Hampshire.

The finest view is toward the south. Looking down the valley through which the road leads from the summit, a grand sierra of mountain peaks extends far off beyond the bright surface of Winnipiseogee lake. Southwesterly is discovered the Grand Monadnock. The ocean may be seen in the S. E., but not without a telescope. In the N. E. is the valley of the Androscoggin, abounding in wild and romantic scenery. North is Lake Umbagog, and a country still more wild and uncultivated. West the immediate view is over a mountainous region, covered with a thick forest, with the occasional opening of a farm among the trees. Beyond, the hills are seen to rise from the opposite shore of the Connecticut, the surface of which is everywhere hidden from view, and the summits rising higher and higher, terminate in the ridges of the Green Mountains of Vermont. Loose fragments of granite are everywhere scattered over the mountain, with some portions of gneiss. The granite is generally gray, and at first, fine grained, but grows coarser as we ascend, and is occasionally sprinkled with small garnets. At the summit it frequently contains a little black tourmaline, sometimes in crossing crystals. On the summit also, some of the granite is tinged with red, although much of it is colored bright green by lichens, dampened by the humidity of the clouds, and interspersed with thick and soft gray moss. The grain of the coarse granite is elongated, and what strikes the visiter as very singular is, that not a single rock is to be found in its original place; everything bears the mark of change, and this, added to the appearance of the precipice on the northern side, seems to indicate that the original summit of the mountain has fallen down and disappeared.

The only places susceptible of cultivation in the heart of the mountains, are the little meadows inhabited by the Crawfords, and the Notch and Willy Meadows; even here the interval of warm weather is so short, that few vegetables can arrive at maturity. The weather is liable to frequent changes which is partly owing to the Notch, through which the wind blows almost unceasingly, even when the air is perfectly still at a short distance from it. The wind is always N. or S. During the winter it is often so violent, as to keep not only the snow, but everything loose from lying on the road.

To the sportsman and hunter, the forests and rivers afford every advantage during the brief summer which visits the valley. Various kinds of wild fowl are to be found in the woods, besides bears, wildcats, and deer. The moose and bison were formerly numerous, and it is little more than thirty years since the former were killed in great numbers, for their hides and tallow. Deer are common; sometimes they come down into the meadows and graze quietly with the cattle. The American black bear is occasionally seen in the wilder parts, but always endeavors to avoid man. The cariboo or American reindeer has made its appearance among the mountains within a few years.



Entrance to the White Mountains.

The road from the seacoast to the mountains passes along the head stream of the Saco, which rises among these mountains and breaks through them at a place known by the name of the Notch, a narrow defile, extending 2 miles in length between two large cliffs, apparently rent asunder by some vast convulsion of Nature. This convulsion was, in the opinion of Dr. Dwight, that of a deluge. "There are here," says he, "and throughout New England, no decisive proofs of volcanic violence, nor any strong exhibitions of the power of earthquakes. Nor has history recorded any earthquake or volcano in other countries, of sufficient efficacy to produce the phenomena of this place. The objects rent asunder are too great, the ruin is too vast and too complete to have been accomplished by these agents. The change appears to have been effected when the surface of the earth sunk to a great extent; when countries and continents assumed a new face, and a general commotion of the elements produced the disruption of some mountains, and merged others beneath the common level of desolation. Nothing less than this will account for the sundering of a long range of great rocks, or rather of vast mountains, or for the existing evidences of the immense force by which the rupture was effected." The entrance of the chasm is formed by two rocks standing perpendicularly at the distance of 22 feet from each other; one about 20 feet in height, and the other about 12. Half of the space is occupied by the brook mentioned as the head stream of the Saco, the other half by the road. The stream is lost and invisible beneath a mass of fragments, partly blown out of the road, and partly thrown down by some great convulsion. When we entered the Notch, we were struck with the wild and solemn appearance of everything before us. The scale on which all the objects in view were formed, was the scale of grandeur only. The rocks, rude and rugged in a manner rarely paralleled, were fashioned and piled on each other by a hand, operating only in the boldest and most irregular manner. As we advanced, these appearances increased rapidly. Huge masses of granite of every abrupt form, and hoary with a moss which seemed the product of ages, speedily rose to a mountainous height.

Before us the view widened far to the S. E. Behind us, it closed almost instantaneously, and presented nothing to the eye but an impassable barrier of mountains. About half a mile from the entrance of the chasm, we saw in full view the most beautiful cascade, perhaps, in the world. It issued from a mountain on the right, about 800 feet above the subjacent valley, and at the distance of about 2 miles from us, the stream ran over a series of rocks almost perpendicular, with a course so little broken, as to preserve the appearance of a uniform current, and yet so far disturbed as to be perfectly white. The sun shone with the clearest splendor from a station in the heavens the most advantageous to our prospect, and the cascade glittered down the vast steep like a stream of burnished silver.

At the distance of three quarters of a mile from the entrance, we passed a brook, known in this region by the name of *the Flume*, from the strong resemblance to that object, exhibited by the channel which it has worn for a considerable length in a bed of rocks, the sides being perpendicular to the bottom. This elegant piece of water we determined to examine further, and, alighting from our horses, walked up the acclivity perhaps a furlong. The stream fell from a height of 240 or 250 feet over three precipices, the second receding a small distance from the front of the first, and the third from that of the second. Down the first and second, it fell in a single current, and down the third in three, which united their streams at the bottom, in a firm basin, formed by the hand of nature in the rock immediately beneath us. It is impossible for a brook of this size to be modeled into more diversified or more delightful forms, or for a cascade to descend over precipices more happily fitted to finish its beauty.

The cliffs together with a level at their foot, furnished a considerable opening, surrounded by the forest. The sunbeams penetrating through the trees, painted here a great variety of fine images of light, and edged an equally numerous and diversified collection of shadows, both dancing on the waters, and alternately silvering and obscuring their course. Purer water was never seen. Exclusive of its murmurs, the world around us was solemn and silent. Everything assumed the character of enchantment, and had I been educated in the Grecian mythology, I should scarcely have been surprised to find an assemblage of Dryads, Naiads, and Oreads sporting on the little plain below our feet. The purity of this water was discernible, not only by its limpid appearance and its taste, but from several other circumstances. Its course is wholly over hard granite, and the rocks and stones in its bed and at its side, instead of being covered with adventitious substances, were washed perfectly clean, and by their neat appearance, added not a little to the beauty of the scenery.

From this spot the mountain speedily began to open with increased majesty, and in several instances rose to a perpendicular height of little less than a mile. The bosom of both ranges was overspread in all the inferior regions, by a mixture of evergreens with trees whose leaves are deciduous. The annual foliage had been already changed by the frost. Of the effects of this change it is perhaps impossible for an inhabitant of Great Britain, as I have been assured by several foreigners, to form an adequate conception without visiting an American forest. When I was a youth, I remarked, that Thomson had entirely omitted in his Seasons, this fine part of autumnal imagery. Upon inquiring of an English gentleman the probable cause of this omission, he informed me, that no such scenery existed in Great Britain.*

In this country it is often among the most splendid beauties of nature. All the leaves of trees which are not evergreens, are by the first severe frost changed from their verdure towards the perfection of that color which they are capable of ultimately assuming, through yellow, orange, and red, to a pretty deep brown. As the frost affects different trees, and the different leaves of the same tree in very different degrees, a vast multitude of tinctures are commonly found on those of a single tree, and always on those of a grove or forest. These colors also in all their varieties are generally full, and in many instances are among the most exquisite which are found in the regions of nature. Different sorts of trees are susceptible of different degrees of this beauty.

Among them the maple is preëminently distinguished by the prodigious variety, the finished beauty, and the intense lustre of its hues, varying through all the dyes, between a rich green and the most perfect crimson, or more definitely, the red of the prismatic image. There is, however, a sensible difference in the beauty of this appearance of nature in different parts of the country, even where the forest trees are the same. I have seen no tract, where its splendor was so highly finished, as in the region which surrounds the little town of Lancaster for a distance of 30 miles. The colors are more varied, and more intense, and the numerous evergreens furnish in their deep hues, the best groundwork of the picture.

I have remarked, that the annual foliage on these mountains had been already changed by the frost. Of course the darkness of the evergreens was finely illumined by the brilliant yellow of the birch, the beech, and the cherry, and the more brilliant orange and crimson of the maple. The effect of this universal diffusion of gay and splendid light, was to render the preponderating deep green more solemn. The mind encircled by this scenery, irresistibly remembered that the light was the light of decay, autumnal and melancholy. The dark, was the gloom of evening, approximating to night. Over the whole, the azure of the sky cast a deep misty blue, blending towards the summits every other hue, and predominating over all.

As the eye ascended these steeps, the light decayed, and gradually ceased. On the inferior summits rose crowns of conical firs and spruces. On the superior eminences, the trees growing less and less, yielded to the chilling atmosphere, and marked the limit of forest vegetation. Above, the surface was covered with a mass of shrubs terminating at a still higher elevation in a shroud of dark-colored moss. As we passed onward through this singular valley, occasional torrents formed by the rains, and dissolving snows at the close of winter, had left behind them in many places perpetual monuments of their progress, in perpendicular, narrow, and irregular paths of immense length, where they had washed the precipices naked and white from the summit of the mountain to the base.

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* All these various changes are noticeable in the forests of Great Britain, particularly in Scotland, though in a far inferior degree. The hues of the changing woods are less brilliant, and the contrasts less striking.

Wide and deep chasms also at times met the eye, both on the summits and the sides, and strongly impressed the imagination with the thought, that a hand of immeasurable power had rent asunder the solid rocks, and tumbled them into the subjacent valley. Over all, hoary cliffs, rising with proud supremacy, frowned awfully on the world below, and finished the landscape. By our side, the Saco was alternately visible and lost, and increased almost at every step by the junction of tributary streams. Its course was a perpetual cascade, and, with its sprightly murmurs, furnished the only contrast to the majestic scenery around us."

The Notch of the White Mountains will long be remembered for the tragical fate of a whole family, who were swept away by a *slide*, or avalanche of earth from the side of the mountain, on the night of the 28th of August, 1826. This family, by the name of Willey, occupied what was called the Notch House, in a very narrow interval between the bases of the two mountains No knowledge of any accident from the mountain in former times, existed to create any apprehension of danger in their situation. Their dwelling stood alone, many miles from the residence of any human being, and there was an aspect of rural neatness, simplicity, and content, in their manners and life, that strongly interested the traveler whom chance or curiosity led into their neighborhood. For two seasons previous, the mountains had been very dry, and on the 28th of June, there was a slide not far from the house, which so far alarmed them, that they erected a temporary encampment a short distance from their dwelling, as a place of refuge.

On the morning of August 28th, it began raining very hard, with a strong and tempestuous wind. The storm continued through that day and night, but it appears the family retired to rest without the least apprehension of any disaster. Among them were five beautiful children, from two to twelve years of age. At midnight, the clouds, which had gathered about the mountain, seemed to burst instantaneously, and pour their contents down in one tremendous flood of rain. The soil, which had been previously soaked through, was suddenly loosened by the flood, and the trees pushed and wrung by fierce winds, acted as levers in breaking up the earth. The avalanche began upon the mountain-top, immediately above the house, and moved down the mountain in a direct line toward it, in a sweeping torrent, which seemed like a river pouring from the clouds, full of trees, earth, and rocks. On reaching the house, it divided in a singular manner within six feet of it, and passed on either side, sweeping away the stable and horses, and completely surrounding the dwelling. The night was dark and frightfully tempestuous. The family, it appears, sprang from their beds, and fled naked into the open air, where they were instantly carried away by the torrent, and overwhelmed. The slide took everything with it, forest, earth, and stones, down to the solid rock of the mountain. In the morning, a most frightful scene of desolation was exhibited. All the bridges over the streams were gone. The road was torn away to the depth of 15 or 20 feet, or covered with immense heaps of earth, rocks and trees.

In the Notch, and along the deep defile below it for a mile and a half, the steep sides of the mountain had slidden down into this narrow passage, and formed a complete mass of fragments. The barn was crushed, and under its ruins were two dead horses, but the house was uninjured. The beds appeared to have been just quitted ; their coverings were turned down, and the clothes of the several members of the family, lay upon the chairs and floor. The little green in front of the house was undisturbed, and a flock of sheep remained there in quiet, though the torrent forming a curve on both sides, had swept completely round them, and united below, covering the meadows and orchard with ruins. The bodies of seven of the family were dug out of the drift wood, and mountain ruins, on the banks of the Saco.

An ancient tradition prevailed among the savages of this region, that a deluge once drowned the whole country, and destroyed every human being, except a single powow and his wife, who saved themselves on the top of these mountains, and preserved their race from extermination. From this occurrence the Indians regarded the mountains as the habitation of superior beings, who manifested their power by the furious tempests which often occurred there. Under the influence of this superstitious awe, they never dared to ascend the highest peaks, holding the attempt sacrilegious ; but, in wandering over the rugged sides and among the savage defiles of this mysterious region, they imagined they beheld supernatural sights ; and many extravagant tales to this effect were current among them. They fancied, also, that they saw carbuncles at an immense height among the peaks, which, in the darkness of the night, shone with the most dazzling brilliancy. These mountains were visited as early as 1642, by Neal, Jocelyn, and

Field, who gave romantic accounts of their adventures, and of the extent and grandeur of the mountains, which they called the Crystal Hills.

3. *Valleys.* The valley of the Connecticut has been already described; the only one beside, necessary to mention, is the valley of the Merrimack, which consists of sandy plains, covered with pine and black timber. It is narrower than the Connecticut valley, and is often contracted to the shores of the stream by rocky hills.

4. *Rivers. Connecticut River*, the largest and the finest stream in New England, has its origin in this State, and washes almost the whole extent of its western border. It rises in the highlands which form the north boundary of the State, and runs about 170 miles S., when it enters Massachusetts, through which State and Connecticut it flows to the sea. For a description of its course the reader is referred to New England. The breadth of this river in the northern part of New Hampshire is about 150 feet. In the course of 60 miles it increases to 390; the depth of the channel below the head of boat navigation varies from 5 to 12 feet. Many falls and rapids occur in this part of the river. The interval lands are generally upon one or both sides of this stream, nearly on a level with its banks, extending from half a mile to 5 miles in breadth; but the borders of the river are in some places high, rocky, and precipitous. In the spring, the Connecticut overflows its banks, and fertilizes large tracts of rich meadows. Many small tributaries are received by this river from New Hampshire, and 16 bridges cross it in that State.

The *Merrimack* rises in N. Hampshire, and has two principal branches; one of them being the outlet of Lake Winnipiseogee. The N. or longer branch is called the Pemigewasset, and has its source near the Notch of the White Mountains. At its junction with the outlet of the lake, this stream takes the name of Merrimack, and flows S. 78 miles to Chelmsford, where it enters Massachusetts, through which it runs E. to the sea. Its whole course is about 200 miles. There are numerous falls in the New Hampshire portion. The Merrimack rises on nearly the same level with the Connecticut, but reaches the sea in running half the extent of the latter, and consequently has double the declivity of the Connecticut in a given space; its current is therefore more rapid, and the interval borders are less extensive. Though not equal to the Connecticut for fine scenery, the Merrimack is a noble and beautiful stream; its waters are pure and salubrious, and on its borders are situated some of the most flourishing towns in New Hampshire. Its name, in the Indian language, signified a *sturgeon.* Its width varies from 50 to 120 rods, and it is crossed by 8 bridges in this State; it receives many minor streams, and the rivers which form the outlets of several small lakes. Its obstructions have been partly remedied by locks at different places, and there is a boat navigation of about 40 miles in this State, extending to Concord. The branches of the Merrimack on the east are the Squam and Sun cook; on the west the Contoocook and Baker's.

The *Piscataqua* is the only considerable river whose whole course lies in New Hampshire. It is formed by the junction of several small streams in a wide and deep bed; the longest of these streams is Salmon Fall River, which forms a part of the boundary between this State and Maine. The others are, the Cocheco, Bellamy Bank, Oyster, Lamprey, Swampscot, and Winnicut; the last 5 of which unite their waters in a large bay between Durham and Greenland. The waters of this bay meet those of the Salmon Fall and Cocheco, a few miles below Dover, and flow S. E. to the sea at Portsmouth. Piscataqua harbor is one of the finest in the United States.

5. *Lakes and Ponds.* The largest lake is the *Winnipiseogee* or *Wentworth*, nearly in the centre of the State; it is about 23 miles long from S. E. to N. W. and 10 wide in the broadest part. Its form is very irregular; it is surrounded by mountains and hills, and sprinkled with a multitude of beautiful islands, which are supposed to be 365 in number. This lake affords the most enchanting views, and is no way inferior in beauty to Lake George. Dr. Dwight thus describes it, as seen from the summit of Red Mountain. "Immediately at the foot of the height on which we stood, and in the bottom of the immense valley below, spread southeasterly the waters of the Winnipiseogee in complete view, except that one or two of its arms were partially concealed by intervening peninsulas. A finer object of the same nature was perhaps never seen. The lakes which I had visited in my northern and western excursions were all of them undivided masses, bordered by shores comparatively straight. This was, centrally, a vast column, if I may be allowed the term, 23 miles in length, and from 6 to 8 in breadth, shooting out with inimitable beauty a succession of arms, some of them not inferior in length to the whole breadth of the lake. These were fashioned with every elegance of figure,

bordered with the most beautiful winding shores, and studded with a multitude of islands. Their relative positions, also, could scarcely be more happy. Many of the islands are large, exquisitely fashioned, and arranged in a manner not less singular than pleasing. As they met the eye, when surveyed from the summit, they were set in groups on both sides of the great channel, and left this vast field of water unoccupied between them. Their length was universally at right angles to that of the lake, and they appeared as if several chains of hills, originally crossing the country in that direction, had, by some convulsion, been merged in the water, so low, that no part of them was left visible except the oblong segments of their summits. Of those which, by their size and situation, were most conspicuous, I counted 45, without attempting to enumerate the smaller ones, or such as were obscured. The points which intrude into this lake are widely different from those of Lake George ; bold, masculine bluffs, infringing directly upon the water ; these, in several instances, were spacious peninsulas, fitted to become rich and delightful residences of man, often elevated into handsome hills, and sloping gracefully into the lake." This lake is 472 feet above the level of the sea ; it receives the water of several small streams, but is supplied chiefly by subjacent springs. Its depth in many parts has not yet been fathomed ; it abounds in excellent fish, and its waters are pure and salubrious. Many of the islands contain large farms, and one of them is 500 acres in extent. The outlet passes from the southwest arm of the lake into the Merrimack.

Squam Lake, a little to the N. W. of the above, is a splendid sheet of water, indented by points, arched with coves, and studded with a succession of romantic islands. It abounds with the finest trout, and is 6 miles in length and 3 in breadth. The largest island is about 1 mile long and one third of a mile wide. This lake communicates with the Merrimack ; it is surrounded by high lands, among which is Squam Mountain, on the N. W. *Sunapee Lake*, S. W. from Winnipiseogee, is 9 miles long and 1½ broad ; its waters pass into the Connecticut. *Ossipee Lake* is a beautiful sheet of water without any islands ; it covers about 7,000 acres, and empties itself into the Saco.

6. *Islands.* The *Isle of Shoals* belong partly to New Hampshire and partly to Maine. They lie about 8 miles out to sea, between Portsmouth and Newburyport, and are hardly more than a cluster of rocks rising above the water ; yet they are on many accounts worthy of notice. They have but a thin soil and barren appearance, yet, for more than a century previous to the Revolution, they were quite populous, containing at one time 600 inhabitants, who found there an advantageous situation for carrying on fisheries. To this day, the best cod in the world are those which are known in market under the name of *Isle of Shoals dun fish.* From 3,000 to 4,000 quintals were once annually caught and cured here, but the business has latterly declined. These Islands were discovered by the celebrated Captain Smith, in 1614, and called at first Smith's Isles. The New Hampshire portion now constitutes the town of Gosport. In all of them are chasms in the rocks apparently caused by earthquakes. There is a remarkable chasm on Star Island, where one of the female inhabitants secreted herself when the islands were invaded, and the people carried into captivity by the Indians. The largest is named *Hog Island* and contains 350 acres ; *Star Island* has 150, *Haley's* 100 ; they are in all 7. The inhabitants are about 100 ; they live solely by fishing, and in connexion with those of the shore in their immediate neighborhood, who follow the same mode of life, are the most rude and uncivilized beings in New England, except the Indians. They supply the markets of Newburyport with fish, and have long been known there by the appellation of *Algerines.* Efforts have recently been made to improve their social condition, and they have now a meetinghouse, school, &c.

7. *Coast.* The whole extent of the coast of New Hampshire is but 18 miles, and the shore is in most places a sandy beach, bordered by salt marshes. The only harbor is that of Portsmouth, although there are several coves for fishing craft.

8. *Climate.* The winter is less severe than in Maine ; the deepest snows fall with a northeast wind, and the storms from that quarter are the longest and most violent, a circumstance common to all the New England States ; spots of snow are seen on the south sides of mountains, as late as May, and on the highest till July. On the most elevated summits, the violence of the wind drives the snow into the long and deep gullies of the mountains, where it consolidates into hard masses, and lies till very late in the season. Morning and evening fires become necessary about the beginning of September. Cattle are housed in the beginning of November, and in the course of this month, the earth and rivers are generally frozen and covered with snow. The open country is usually clear of snow in April, but in the woods and northern

parts it often lies till May. The spring is wet and foggy, but the summer is beautiful, and the progress of vegetation very rapid ; the number of fair days throughout the year, compared to the cloudy, are 3 to 1. New Hampshire is a healthy State, and epidemics have seldom prevailed in it. The most remarkable were the *cynanche maligna*, or putrid sore throat, which made its first appearance at Kingston in May, 1735, and the *petechial*, or spotted fever, which prevailed in different places in 1811, and still later. Within a century, there have been known 83 persons, who lived from 100 to 120 years.

9. *Soil.* The best lands in New Hampshire are on the borders of the large rivers, where, being occasionally covered by the waters, they are fertilized by the rich sediment which these deposite. The hilly land has a moist and warm soil, affords fine pasturage, and supports immense numbers of cattle and sheep. Where the land lies in large round swells, the tops and sides of these heights have a fertile soil, while the land in the valleys between is generally cold and poor. Where a considerable river runs through a valley, the land on one or both sides, is often of the best kind. On the banks of the Connecticut are many thousands of acres, level and smooth, with not a stone to be seen in them, and yielding the richest crops of grain and hay. Barren tracts of any considerable extent are unknown ; and, except the wild and unexplored region at the north, the State is very generally susceptible of cultivation.

10. *Geology.* The high ridge of mountains which separates the branches of the Connecticut and Merrimack, is composed of the older primitive rocks ; granite predominates at the more northern and elevated part of the ridge, while mica slate appears more abundantly at the southern portions, where it constitutes the Great Monadnock and some other lofty eminences. Mica slate predominates in this chain, but granite appears in various places ; it has a coarse, porphyritic structure ; the imbedded grains of felspar are large, but very seldom in twin crystals. Porphyritic granite occurs also in boulders and in rolled masses east of this ridge. A beautiful fine-grained granite is found in many places, as at Concord, Boscawen, and Hopkinton, and affords admirable building stone. East of this great ridge, mica slate, gneiss, and greenstone occur. In passing from Concord easterly to Portsmouth, the following succession of rocks may be observed ; granite, 4 miles from Concord ; gneiss, 11 miles ; mica slate, 14 miles ; granite, 15 miles ; then gneiss, and lastly greenstone ; the direction of the strata is nearly northeast and southwest. There is a remarkable alluvion formation through which the Merrimack passes, and which embraces all the sandy plains which are covered with pine and black timber in the neighborhood of the river. This formation extends through Chelmsford to Cambridge and Boston, on one hand, and, on the other, it follows the course of the river quite to the ocean, embracing large tracts of land on either side. Rocks in some places break through this alluvial deposite, but they form no very high hills.

11. *Minerals, Quarries, &c.* Steatite, or soapstone, is found at Francestown and Orford, where it is quarried and wrought. Primitive limestone occurs at Orford, Hanover, Lisbon, and Meredith, where there are also quarries. Pyritous copper, or copperas ore, is found at Franconia. Galena, or lead ore, is found at Orford and Lebanon, and iron at Franconia. Plumbago, or black lead, has been recently discovered in many places, in most abundance at Bristol. The other minerals which this State produces in greater or less abundance, are beryls, garnets, jasper, manganese, asbestos, and amethyst. The iron mine at Lisbon is one of the richest in the United States. The quantity of ore is inexhaustible, and it yields above 60 per cent of metal. The ore is taken from a mountain in the east part of Lisbon, and carried 3 miles to the furnace in Franconia, where about 12 or 15 tons of iron are made in a week.

12. *Natural Productions.* The native forest-trees of New Hampshire are lofty and luxuriant, and yield vast quantities of timber. This State was originally an entire forest ; the mountainous regions being covered with a thick growth of oak, maple, beech, walnut, hemlock, fir, white pine, &c. ; the plains and valleys with the elm, cherry, ash, poplar, hornbeam, birch, sumach, locust, and many others. Many varieties of pine are natives of this State. The white pine, one of the noblest trees in the world, grows here in great perfection ; it sometimes attains to the height of 200 feet, yet its stem is perfectly straight, and often exceeds 6 feet in diameter. In 1736, a white pine was cut from the border of the Merrimack, the trunk of which was straight and sound, and 7 feet 8 inches in diameter. The pitch pine and hemlock also grow very high here ; the fir and other species grow to a more moderate height. Of the oak, elm, birch, maple, &c., there are several varieties. The *rock maple* is the sugar maple of this region, and grows very high, yielding sap which makes the finest sugar. The red and white maple also yield sugar, but in less quantities. Of wild plants and roots, valuable for culinary and

medicinal purposes, New Hampshire has a great variety; the ginseng, so much esteemed by the Chinese, is found here in abundance, and of good quality. Here are produced also the buck-bean, the large flowering dogwood, lobelia, henbane, cicuta, &c.

13. *Face of the Country.* With the exception of a small tract, 20 or 30 miles in width, along the coast, which is level, or nearly so, this State presents a surface broken up into every diversity of hill, valley, and mountain. The hills increase in height as they recede from the sea, till they swell into the lofty grandeur of the White Mountains. New Hampshire is the most mountainous State in the Union; and, from the great beauty of its lake, mountain, and river scenery, has been denominated the Switzerland of America.

14. *Natural Curiosities.* Bellows Falls form a remarkable cataract or rather violent rapid in the Connecticut, at the village of Bellows Falls, 5 miles from the town of Walpole. The breadth of the river above the fall is from 16 to 22 rods; a large rock divides the stream into two channels, each about 90 feet wide on the top of the shelving bank. When the water is low, the east channel appears crossed by a bar of solid rock, and the whole stream falls into the west channel, where it is contracted into the breadth of 16 feet, and flows with astonishing swiftness. There are several pitches, one above another, in the length of half a mile, the largest of which is that where the rock divides the stream; the descent in this whole course is 42 feet. Notwithstanding the velocity of the current, the salmon used to pass up this fall, and were taken many miles above. The Indians were accustomed to spear large numbers of them in their descent. There is a bridge across the falls, and a canal half a mile long, with 9 locks, around them on the west side. Amoskeag Falls, in the Merrimack, consist of three successive pitches, falling nearly 50 feet. The neighborhood of these falls was formerly much frequented by the Indians, and many skirmishes took place between them and the early settlers of Vermont and New Hampshire. During their wars, the savages concealed their provisions in the caves among the rocks of the island in the upper part of the fall. There are falls also at Barrington, and extensive caverns in Chester. At Franconia is a singular eminence called the Profile Mountain, being a rugged peak 1000 feet in height, presenting a bold and majestic front of solid rock; a side view of this exhibits a profile of the human face, every feature of which is conspicuous.

POLITICAL GEOGRAPHY.

1. *Divisions.* The State is divided into 8 counties, which with the county towns are as follows:

Counties.	*County Towns.*	*Counties.*	*County Towns.*
Coos,	Lancaster.	Strafford,	Dover. Gilmanton. Gilford. Rochester.
Grafton,	Haverhill. Plymouth.	Rockingham,	Portsmouth. Exeter.
Merrimack,	Concord.		
Sullivan,	Newport.		
Cheshire,	Keene.		
Hillsborough,	Amherst.		

The capital is Concord.

2. *Canals.* Several canals have been constructed round the falls of the Merrimack; Bow canal, half a mile in length, passes a fall of 25 feet; Hooksett canal, 50 rods in length, passes Hooksett falls, with a lockage of 16 feet; Amoskeag canal passes a fall of the same name, with a lockage of 45 feet, and Union canal overcomes 7 falls.

3. *Roads, Railroads, and Bridges.* There have been incorporated 53 turnpike companies in New Hampshire, which have completed roads to the extent of about 500 miles. The bridges are about 25, without reckoning small ones. These are all of wood. The Nashua railroad, from Nashua to Lowell, is partly in this State; a continuation of this work to Concord, 30 miles, and of the Boston and Maine railroad, through Plaistow, Exeter, and Dover, 30 miles, are in progress; and that of the Eastern railroad, from the Massachusetts line to Portsmouth, 18 miles, is contemplated. Railroads from Dover to Alton, on Winnipiseogee Lake, 28 miles, and from Concord, by the Contoocook valley, to Claremont, on the Connecticut, 45 miles, are projected. The Portland and Connecticut River Railroad Corporation has been formed, with the design of building a railroad from Portland to Haverhill.

4. *Towns.* The largest town is *Portsmouth*; it lies at the mouth of the Piscataqua, upon a

peninsula, and is the only seaport in the State. It has one of the best harbors in the world, completely landlocked, never frozen, and accessible to the largest ships. It is defended by several forts and batteries, and contains a number of islands, on one of which is a United States navy-yard. Portsmouth has a pleasant and healthy situation ; it contains some handsome buildings, and the town is generally well built. The churches, a court-house, several banks, 2 markets, an academy, an athenæum, containing valuable cabinets, and an almshouse, are among the buildings. This town has a considerable commerce, and the inhabitants own 26,000 tons of shipping. Portsmouth is connected with Kittery, in Maine, by two bridges, one 480 feet in length, and the other 1750 ; they are built upon 90 framed sections of piers. The town has suffered severely by fires, the most recent and destructive of which, in 1813, consumed 397 buildings. Population, 9,000. Ship-building is extensively carried on here.

Concord, on the Merrimack, is the seat of government, and lies principally on the west bank of the river, in one street, nearly two miles in length. It contains a State house and State prison, both of granite, a court-house, several churches, banks, and printing offices, and 200 houses. On the east of the river is a considerable village, and another is forming in the western part of the town. The State house is a neat edifice 126 feet in length, and 49 in width ; it has two stories above the basement, and is surmounted by a cupola. The State prison is a granite building 70 feet long and 36 wide, and is enclosed by a wall 14 feet high, surmounted by 10 additional feet of pickets. The convicts are employed in stone-cutting, coopering, iron work, shoe-making, weaving, and tailoring. Much of the trade of the upper country centres in this place, and the manufactures are considerable and increasing. Sewall's falls furnish a valuable water power. Granite quarries are also worked in the town. Population, 4,500. There are two bridges across the Merrimack in the town. *Nashua* is an important manufacturing town on the Merrimack, with 5,600 inhabitants.

Dover, 10 miles northwest from Portsmouth, on the Cocheco, 4 miles above its junction with the Piscataqua, is the oldest town in New Hampshire, and contains a court-house, jail, bank, and extensive cotton manufactories. The river here has many falls, the largest of which is 40 feet. Population, 6,000. *Somersworth*, near Dover, comprises the manufacturing village of Great Falls, where there are several large manufactories. Population, 3,600. *Exeter*, 14 miles from Portsmouth, at the head of tide water, on a stream running into the Piscataqua, is a considerable town. It has a court-house, academy, and several manufactories of cotton, powder, starch, paper, oil, &c. Population, 3,500. *Amherst*, on Souhegan River, a branch of the Merrimack, is a pleasant village, having a mineral spring. *Keene*, *Walpole*, *Hanover*, and *Haverhill*, are also considerable towns.

5. *Agriculture.* New Hampshire is chiefly an agricultural State. Maize, wheat, rye, oats, barley, flax, grass, &c., are the common products of the earth ; and pork, beef, mutton, poultry, butter, and cheese are exported. Agricultural societies are numerous, and great exertions are made to improve the state of tillage. Plaster of Paris from New Brunswick has been used for some years as a manure. On the interval lands, which border the rivers, wheat often yields 20 or 30 bushels to the acre, though generally from 15 to 20 is considered a good crop ; maize will average 30 or 40 bushels, and potatoes 200 or 300. Of fruits, there are a variety. No country produces more abundant crops of apples ; and cider, by proper management, may be made of the best quality ; peaches do not flourish here ; but plums, pears, cherries, &c., grow in abundance. Meetings for cattle-shows are annually held, where the distribution of prizes has a considerable effect in exciting competition among the farmers.

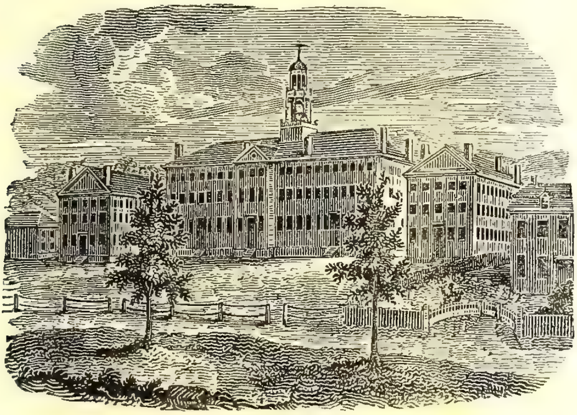
6. *Commerce.* The exports from the northern part of the State, go necessarily to the markets in Maine, and a great portion of those from the middle and southern parts are carried to Newburyport, Boston, and Hartford. The maritime commerce of New Hampshire, therefore, strictly speaking, is confined to the single port of Portsmouth. The staple commodities exported are lumber, provisions, horses, neat cattle, pot and pearl ashes, flaxseed, &c. The inland trade is more important.

7. *Manufactures.* The preparation of lumber, fire-wood, pot and pearl ashes, ginseng, and maple sugar, furnishes sources of profit to this thrifty people, and some mines and quarries are advantageously worked. The large manufacturing establishments are not numerous, but the aggregate product of mechanical industry is considerable. Thus, in a great many villages, we find that leather, boots and shoes, carriages and wagons, mechanical and agricultural implements, hats of fur, wool, and palm-leaf, furniture of all kinds, buckets and casks, &c., and in fewer instances cotton and woolen goods, glass, paper, gunpowder, and pottery, are produced for

exportation, giving employment to many hands. Dover, Somersworth, Exeter, Newcastle, Nashua, and Amoskeag, are the principal seats of the large manufactories, and there is abundant water power at Concord, and many other places, not yet used. There are in the State. 60 cotton mills, 32 woolen mills, 952 saw mills, 609 grist mills, 15 oil, and 20 paper mills, &c.

8. *Fisheries.* 60 or 70 vessels, from 20 to 75 tons each, besides smaller craft, are employed during the fishing season, from the 1st of March to the latter part of November, in the bank and mackerel fisheries. These vessels take from 38,000 to 45,000 quintals of cod and pollock, and 6,000 barrels of mackerel yearly.

9. *Education. Dartmouth College*, in the town of Hanover, was established among a score of log huts, in 1770, and has now grown into a very respectable institution. It received its name from the Earl of Dartmouth, one of its early benefactors. The buildings are several handsome edifices, containing rooms for students, a laboratory with commodious lecture rooms, a chapel, and a dining hall ; the libraries contain 20,000 volumes. The officers are a president, and 10 teachers ; the number of students about 200, besides medical students. *Phillips Academy*, at Exeter, is one of the oldest and best endowed academies in the country. It was founded by John Phillips in 1781 ; it has a library and philosophical apparatus. There are also many other incorporated academies, and common schools are supported by law ; the number of school districts is 1,698 ; schoolhouses, 1,600.


Dartmouth College.

10. *Religion.* Perfect toleration is allowed, and no person without his consent can be called upon for the support of any religious society. The Calvinistic Congregationalists have 180 societies, and the Unitarians 17 ; the Presbyterians, 10 ; the Episcopalians, 10 ; the Calvinistic Baptists, 90 ; the Freewill Baptists, 100 ; the Christ-ians, 23 ; the Methodists, 71 ministers ; the Quakers, 15 societies ; the Universalists, 20 ; the Shakers 2, and the Sandemanians, 1. These last are the followers of Robert Sandeman, who came to this country in 1764.

11. *Inhabitants.* The origin, habits, and character of the people are similar to those of the inhabitants of New England generally, of which we have already given a sketch. The south part of the State is the most thickly settled.

Population at different periods.

1790, - - -	141,899	1820, - - -	244,161
1800, - -	183,762	1830, - - -	269,328
1810, - - -	214,360		

12. *Antiquities.* In Sanbornton, on Lake Winnipiseogee, at the head of Little Bay, are the remains of an ancient Indian fortification ; it formerly consisted of 6 walls ; one extending along the river and across a point of land into the bay, and the others at right angles, connected by a circular wall in the rear. Traces of these walls are yet to be seen, though most of the stones and other materials of which they were composed, have been removed to a dam in the river. Within the fort have been found numbers of Indian relics, and others also on an island in the bay. When the first settlers of these parts arrived, the walls were breast high, and large oaks were growing within their enclosure. Near the west shore of Ossipee Lake, is a circular mound 45 or 50 feet in diameter, from which have been taken skeletons, tomahawks, &c.

13. *Government.* The constitution of New Hampshire was established in 1792. The legislature consists of a Senate and House of Representatives. The senators are chosen in districts, and the representatives in towns. The legislature meets annually in June. The governor and executive council are chosen annually by the people. The judiciary system is

the same as in Maine and Massachusetts. The annual revenue of the State from taxes and the product of funded stock is about 50,000 dollars. The representatives to Congress are 5 All residents who pay taxes are voters.

14. *History.* New Hampshire was discovered by Captain Smith in 1614. The original patent was granted to John Mason and Ferdinando Gorges, in 1622; in this patent, the country was named *Laconia.* The first settlements were made at Dover and Portsmouth, in 1623. In 1641, all the settlements by a voluntary act submitted to Massachusetts, and were comprehended in the county of Norfolk, which extended from the Merrimack to the Piscataqua. In 1679, a new government was established, and New Hampshire was made a royal province by commission from Charles the Second. The first General Assembly met at Portsmouth in March, in 1680. The union with Massachusetts was renewed in 1689, but a separation took place in 1692. From 1699 to 1702 it was connected with Massachusetts and New York, and from 1702 to 1741, with Massachusetts alone, after which it remained a separate government. This State suffered much from the early Indian wars; one of the incidents of which may be related here, as illustrative of the vindictive and ferocious character of the savages.

In 1675, Major Waldron, by a stratagem, made prisoners of about 200 Indians, who had menaced the settlements with hostilities; 7 or 8 of these who were known to have committed some atrocities, were immediately hanged, and the rest sold into slavery. The Indians of the neighborhood were exasperated by this proceeding, and swore implacable revenge against Waldron. In 1689, after a lapse of 13 years, they found means to accomplish a scheme of vengeance. Waldron then dwelt at Dover, and the inhabitants of the town, unsuspicious of any hostility, were utterly off their guard, and allowed the savages to sleep within their garrison, so far were they deceived by their artful dissimulation. On the evening of the 27th of June, they assembled in the neighborhood of the town, and sent their squaws to apply for lodging at each house marked for destruction; these were admitted without suspicion.

In the dead of the night, the doors were thrown open at a concerted signal, and the Indians rushed from their ambush upon the defenceless inmates. Waldron, though 80 years old, made a gallant defence; he seized his sword and drove back those who broke into his chamber, but when returning for his weapons, was overpowered by numbers and struck down with a hatchet. The Indians dragged him into his hall, seated him in an elbow-chair upon a long table, and insultingly asked him, "Who shall judge Indians now?" Each one then with his knife cut gashes across his breast, saying "I cross out my account." When, weakened with the loss of blood, he was about to sink, his own sword was held under him, upon which he fell and died.

CHAPTER VII. VERMONT.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* Vermont is bounded north by Lower Canada, east by Connecticut river, which separates it from New Hampshire, south by Massachusetts, and west by New York, from which it is separated mostly by Lake Champlain. It lies between 42° 44′ and 45° north lat., 71° 33′ and 73° 26′ west long., being 157 miles in length, from north to south, and 90 miles in breadth at the northern extremity, and 40 at the southern. It contains 10,000 square miles. No part of the State is nearer the ocean than 70 miles.

2. *Mountains.* The *Green Mountains* occupy the centre of the State throughout its whole length. This range begins in the State of Connecticut at West Rock, near New Haven, and extends north into Vermont. Tracing the course of these mountains from the southern limit of this State, we find them stretching northerly to the 44th parallel of latitude. At this point they divide into two branches; one of them called the *Height of Land*, continuing in a north easterly course, forms the northern boundary of New Hampshire and Maine. The western range runs to the north, and terminates near the extremity of the State, in a succession of small hills. The highest summits of the Green Mountains belong to the western range, although the northeastern branch forms the ridge separating the tributary streams of the Connecticut from those of Lake Champlain, and some of these latter pass through the western range. The streams which arise on the west of the mountains in the southern part of the State, flow into the Hudson. From the southern limit of Vermont, to the point where the mountains are divided into two branches, the range is lofty and unbroken by the passage of any large stream; in these parts the communication between the districts, on the opposite sides, is difficult. The

western range beyond the fork is high and precipitous, but the rivers which cross its course have opened convenient passages, and the communication from east to west is much less obstructed than in the southern division. The northeastern branch is nearly uniform in height, and has no prominent elevations, but it diminishes on approaching the Canada line.

The Green Mountains are from 10 to 15 miles wide, much intersected with valleys, abounding in springs and streams, and exhibiting that perpetual verdure which has conferred upon them their name. Their sides are completely covered with woods, and their rocky summits are clad in a coat of green moss. The trees appear old, but small ; they are chiefly of the evergreen kinds, pine, spruce, hemlock, and fir, intermixed with shrubs and bushes. Vegetation decreases on approaching the top of the mountains ; the trees diminish in size, and frequently terminate in a shrubbery of spruce and hemlock, two or three feet high, with branches so interwoven, as to prevent all passage through them. Trees of this height, with shrubs and vines producing berries, and a species of weed called winter grass, mixed with the moss of the rocks, are all the vegetation which the summits of the mountains produce. The sides of the mountains are generally rugged and irregular ; some of them have large apertures and caves. The thick, green moss which coats their tops is so compact and firm, and lies in such extensive beds, as to reach from rock to rock, and they will sometimes bear the weight of a man without being broken through. These immense spongy masses receive the moisture supplied by the clouds and rain, and while a part of it runs down the sides of the mountain, much of it is absorbed, and penetrates the whole mass. In this manner several of these mountains are continually wet on their tops, and have large marshy spots, which are the constant resort of water fowl during the warm season. The roads across them are frequently wet and miry, when the valleys below are dry. The loftiest summits are Killington Peak, near Rutland, 3,675 feet ; Camel's Rump, between Montpelier and Burlington, 4,200 feet ; and Mansfield Mountain, a few miles further north, 4,280 feet above the level of the sea. Ascutney, a single mountain near Windsor, is 3,320 feet in height.

3. *Rivers.* Except the Connecticut, which washes the eastern border of the State, all the rivers of Vermont are small, and have their origin among the Green Mountains ; 35 of these run easterly, and fall into the Connecticut; 25 run westerly into Lake Champlain, and 2 or 3 in the same quarter fall into the Hudson. In the N. E. are 4 or 5 which fall into Lake Memphremagog, through which they finally reach the St. Lawrence. There is but one river in the State navigable to any extent ; this is the Connecticut, and strictly speaking, this is within the boundary of New Hampshire. The chief streams flowing into the Connecticut, are, beginning at the north : 1. the *Pasumsic*, which rises from a pond in Westmore, a little to the S. E. of Lake Memphremagog, and flows southerly 45 miles to the Connecticut at Barnet, receiving in its course 10 small streams : 2. *White River*, formed from 2 small branches, and falling into the Connecticut, after a course of 50 miles : 3. *West River*, which joins the Connecticut near the south boundary of the State.

On the west of the mountains, there flow into Lake Champlain, 1. the *Missisque*, rising in Belvidere, passing into Canada, returning to Vermont and falling into the lake at Missisque Bay ; this river is navigable 7 miles for boats : 2. the *Lamoile*, rising in Glover, and running into the lake at Colchester ; this river is 75 miles long, and is a smooth, pleasant stream, watering a rich, fertile, and level country ; it has 14 tributaries 3. *Winooski* or *Onion River*, rising 30 miles east of the Green Mountains, and running northwesterly about 80 miles to the lake ; it is navigable for small vessels 5 miles from its mouth ; above this it is obstructed by falls : 4. *Otter Creek*, which rises in Bromley and runs north 90 miles to the lake at Ferrisburgh ; it is navigable to the falls at Vergennes, 5 miles.

4. *Lakes. Lake Champlain*, which bounds this State on the west, is 128 miles long, varying in breadth from 1 mile to 15 ; it is sufficiently deep for the largest ships, and contains a surface of 600 square miles. It embosoms above 60 islands, and discharges its waters northward through the river Sorelle, into the St. Lawrence. From the 20th of April to the 20th of June, the waters of the lake generally rise from 4 to 8 feet. Early in the winter the shores are frozen, but the whole lake is not often covered with ice till the middle of January. Early in April the ice disappears. Many marks on the rocks along the shore, indicate that the level of the waters was much higher in former years than at present ; though no perceptible alteration has taken place since the discovery of the country. This lake took its name from Samuel Champlain, a Frenchman, who discovered it in 1608, and was afterwards drowned in its waters. Many considerable towns are situated on its shores, the principal of which are Burlington, St. Alban's.

Timber Raft on Lake Champlain.

Plattsburg, and Whitehall. On the 11th of September, 1814, a naval battle was fought upon its waters between the American fleet, under Commodore McDonough, and the British fleet under Commodore Downie, in which the Americans obtained a complete victory. The lake is navigated by about 400 vessels of all kinds, including several steamboats. Immense timber rafts, containing houses for lodging the crews, are often seen floating down the lake toward the canal, on their way to Albany and the towns on the Hudson.

Lake Memphremagog lies partly in Canada, and partly in the north of this State ; it is 35 miles long and 3 broad ; its outlet is the river St. Francis, which flows into the St. Lawrence. The land around this lake is level and fertile.

A remarkable eruption of one of the small lakes of this State took place in 1810. *Long Lake*, a beautiful sheet of water, a mile and a half in length, and three fourths of a mile in width, was situated in the town of Glover in the north part of the State, and communicated by a small stream with lake Champlain. About 200 rods from Long Lake, was a smaller lake on a much lower level, the outlet of which was Barton River, flowing in an opposite direction into Lake Memphremagog. The land separating these lakes was a steep declivity. The water being low at the mills on Barton River, during the summer of 1810, it was thought advisable to obtain a new supply by letting out a portion of the water of Long Lake into the lake beneath, by means of a trench down the intervening declivity. Accordingly, on the 6th of June, the people of the neighborhood assembled with their tools, and began the work of cutting the trench, when on a sudden the lake burst its borders, and poured with its whole mass down the descent, rushing with inconceivable velocity in an immense column, three quarters of a mile wide, and 80 feet in depth, across the country 15 miles into Lake Memphremagog. This furious torrent tore up in its course, rocks, hills, and forests, sweeping away houses, mills, cattle, &c. roaring like thunder, and shaking the earth like a mighty earthquake. The inhabitants of Barton hearing the roar, looked up towards the lake, and beheld the torrent coming down upon them, bearing a whole forest upon its top. The cattle for many miles round, ran bellowing to their homes, and all the neighborhood were thrown into the greatest terror. No lives were lost, but a vast amount of damage was occasioned by the inundation.

5. *Islands.* There are three considerable islands in Lake Champlain, called *North* and *South Hero* and *La Motte*. North Hero contains 6,200 acres, and has a good soil. South Hero has above 9,000 acres of good land. The basis of these islands is limestone, abounding in some parts with shells.

6. *Climate.* The climate of Vermont is cold and changeable, but the air is pure and healthy, except on the shores of the lake, where fevers sometimes prevail. The extremes of temperature are about 100 degrees above, and 27 below the zero of Fahrenheit. Winter begins about the first of December, although frosts appear as early as the first of September. From the first setting in, to the breaking up of the winter, there is scarcely any thaw. The winter continues till April. Snow-storms are frequent, yet little snow falls at a time ; they come from all points of the compass except the East, and are generally over in a few hours. The cold is here more steady and uniform than in the other New England States. On the mountains, the snow falls commonly 3 or 4 feet deep, and lies till the end of April. On the low grounds, it is from 1 to 2½ feet in depth, and continues till about the 20th of March. The severest cold never kills the young trees, and the chilling easterly winds of spring seldom reach so far inland as to be felt here ; west of the Green Mountains they are totally unknown.

Wheat, barley, pease, and flax, are sown about the 20th of April, and frosts disappear by the middle of May. Apple-trees put forth leaves about the 5th of May, and blossom by the 15th. Maize is planted between the 10th and 20th of May. Hay is cut by the 10th of July ; barley and rye are reaped the last of July ; flax in the early part of August ; wheat in the middle of August. Apples are ripe by the 8th of August. Oats are reaped by the 20th of August, and maize is ripe on the first of October. Droughts are uncommon; the crops more frequently suffer from too much moisture. During April and May, the weather is mild with frequent showers. Through the summer it is fair and serene. The wind at this season is mostly from the southwest, being regulated by the direction of the mountains, and the shores of lake Champlain. The heat of the day is excessive, but the nights are ever cool and agreeable. Thunder-showers usually come from the west, and southwest, and are common in May, June, July, and August, but not at other times. In spring and autumn, the atmosphere is often smoky and obscure. Throughout September, and the most of October, the finest weather prevails, with gentle winds, and a clear sky. Frosts appear, as before stated, in September; November is cold and rainy, with some snow, and high winds.

7. *Soil.* The soil is generally rich and loamy. On the borders of the rivers are fine tracts of interval land, which consist of a deep, black, alluvial deposit; these are sometimes a mile in width, and are very productive in maize, grain, grass, and garden vegetables. The uplands are in many places scarcely inferior to the intervals, and are in general sufficiently free from stones to admit of easy cultivation. The hills and mountains, which are not arable on account of their steepness or the rocks, afford the best of pasturage for sheep and cattle. There is hardly any part of the country better adapted to the rearing of horses, horned cattle, and sheep, than the mountainous parts of this State. Wheat is raised more abundantly on the western side of the mountains, than on the eastern. The soil and climate of all parts are very favorable to the growth of the apple and other fruits. The greater part of the State is better fitted for grazing, than tillage.

8. *Geology.* The rocks E. of lake Champlain belong to the transition order, for the distance of 10 or 15 miles from the shore; along the rivers are many alluvial deposits, but the general character of the State is decidedly primary. The ranges of rocks, like the ranges of mountains. extend through the State from North to South. The ranges on the West side of the mountains are much more regular, and better known, than those on the eastern. Beginning at the lake, and proceeding easterly, they are nearly as follows: 1. Old red sandstone in an interrupted range. 2. Graywacke. 3. Transition or metalliferous limestone, alternating with transition argillite. 4. Transition or calciferous sandstone. 5. Transition argillite. 6. Primitive argillite. 7. Sparry limestone. 8. Granular limestone. 9. Granular quartz, containing hæmatitic iron ore and manganese, and lying at the foot of the Green Mountains on the W. side. 10. Hornblende rock. 11. Gneiss, with alternating layers of granite. 12. Mica slate, constituting the middle ridge of the Green Mountain range, and extending in many places a considerable distance down the eastern side. These ranges of rocks reach from Canada to New Jersey. They are frequently interrupted, and the primary rocks are often in alternating layers. Mica slate and gneiss are the most common rocks, for a considerable distance down the eastern side of the mountains. Primitive limestone is found in Londonderry, Weston, and other places, and also in Caledonia county. An extensive range of serpentine occurs in the southern, and another in the northern part of the State; in connexion with the serpentine are beds of steatite, talc, and chlorite. Further east are found hornblende rock, gneiss, granite, and argillaceous slate, in uninterrupted ranges. A bed of granite extends through Windham county, passing the Connecticut at Bellows Falls into New Hampshire. Ascutney mountain is formed of this stone. Along the Connecticut is an uninterrupted range of argillaceous slate.

9. *Minerals, Quarries,* &c. Iron is abundant in this State, and lead, zinc, copper, and manganese are found in many places. Sulphate of iron, or copperas ore is very plentiful. The manufacture of this last, deserves particular notice, and an account of it will be found under the head of manufactures. The sulphuret of iron is found in the towns of Strafford, and Shrewsbury, in the eastern and central parts of the State. At the former place, the bed of the mineral lies on a hill, and is half a mile in length, and two or three rods in width; the depth is unknown. The ore is covered with a stratum of earth about three feet deep; below this is a stratum of ferruginous petrifactions, two or three feet in depth, exhibiting forms of buds, leaves, limbs, &c. Below this lies the sulphuret of iron. It is very compact; its colors are brilliant, varying from that of steel to a bright yellow, and it is occasionally diversified by small quantities of green copper ore. It is traversed in many parts by small veins of quartz. The best iron is found at Peru, in the southern part of the State, and has the highest reputa-on for its ductility and toughness. It is worked into chains, bolts, &c. but the bed of ore

having been much reduced of late, and the manufacture of iron increased, an inferior sort is now mixed with the Peru iron, by which its quality has much deteriorated. It is still, however, of high excellence.

A quarry of fine marble exists in Middlebury. It rests upon a bed of argillite, and rises in many places above the surface of the ground. The marble is of various colors, and has been wrought ever since 1806. It is now in the possession of an incorporated company, and the machinery for sawing it is driven by water. At Swanton, on Lake Champlain, in the north, is an inexhaustible quarry, which covers an area of more than 300 acres. The marble is of a beautiful black, and sometimes of a bright blue-clouded color ; 100 saws are occupied at the mills in this town, in working it into various forms. On a small island in Lake Memphremagog, is a quarry of *novaculite*, known by the name of *Magog oil-stone ;* it is several hundred feet in length, and interspersed with quartz. A manufactory of this stone has been established in the town of Burke. The oil-stones when manufactured, sell for 50 cts. per pound. Quarries of slate are wrought near Brattleboro'.

11. *Face of the Country.* Our descriptions have already shown, that the surface of the State is highly diversified. From the mountainous ridge which occupies the centre of the State, the land slopes, toward the Connecticut and Lake Champlain. Adjoining the rivers are extensive plains, but the elevated country forms the greater proportion of the surface. In the northern parts, the population is thin, and the country still unsubdued by the plough. Innumerable stumps, the remains of the pristine forests, deform the fields. Pines and other trees, girdled, dry, and blasted by summer's heat and winter's cold, scorched and blackened by fire, or piled in confusion on fields cleared half by the axe and half by burning, — these, with the rude log huts of the inhabitants indicate a country imperfectly subdued by man. But if we confine ourselves to merely physical observations, and consider the natural formation of hill, mountain, valley, lake, and stream, we shall find this State to be among the most picturesque portions of North America.

POLITICAL GEOGRAPHY.

1. *Divisions.* Vermont is divided into 14 counties, which, with their chief towns, are as follows :

Counties.	*County Towns.*	*Counties.*	*County Towns.*
Addison,	Middlebury.	Lamoile,	Hydepark.
Bennington,	Bennington.	Orange,	Chelsea.
	Manchester.	Orleans,	Irasburg.
Caledonia,	Danville.	Rutland,	Rutland.
Chittenden,	Burlington.	Washington,	Montpelier.
Essex,	Guildhall.	Windham,	Newfane.
Franklin,	St. Albans.	Windsor,	Woodstock.
Grand Isle,	North Hero.		

2. *Towns.* *Montpelier*, the capital, is situated on Onion River, within 10 miles of the centre of the State ; it is a flourishing village, and contains the State-house, a court-house, jail, academy, several manufactories, and printing offices, and 4 weekly newspapers ; it is in a low situation, surrounded by hills ; a great many of the roads of the State meet at this point. The new State-house, or capitol, is a handsome structure of granite, with a front of 150 feet, in the centre of which is a neat Doric portico, surmounted by a dome ; height to top of dome, 100 feet. Population, 2,000.

Windsor, on the Connecticut, 60 miles southeast of Montpelier, is a handsome town, and has considerable business. It contains a court-house, a State prison, bank, several handsome churches, and printing offices issuing weekly newspapers. Mount Ascutney, a lofty, isolated peak, is partly in this town, and partly in Weathersfield. A magnificent prospect is afforded from its summit. Population, 3,500.

Burlington, on Lake Champlain, is a flourishing and commercial town. It contains a court-house, jail, a college, an academy, several churches, and printing offices issuing weekly newspapers. Within the township is another village, at the falls of Onion River, containing several manufactories. Burlington has more commerce than any other town in Vermont, and is a port of entry for foreign shipping. A great deal of the trade of Lake Champlain centres at this place. Here are two bridges over the Onion River. This is the largest town on the lake.

and occupies a commanding and beautiful situation. The lake suddenly expands as the voyager approaches the town from the south, and a fine semicircular bay opens on the view, skirted by a crescent of high ground, under the shelter of which the town stands. The view from the summit of the hills is delightful, embracing in the foreground the elegant gardens of the town, with the streets below, the curving form of the bay, the whole breadth of the lake, here ten miles across, and a chain of lofty blue mountains on the opposite shore. Population, 4,000.

Brattleboro', on the Connecticut, 50 miles below Windsor, has several manufactories of cloth, paper, lead, &c., and considerable trade; printing to considerable extent is carried on. Here is the Vermont Insane Asylum. The scenery in the neighborhood of this town is highly picturesque. Population, 2,500.

Middlebury, on Otter Creek, contains a college and two academies, several churches, a bank, and some manufactories. A quarry of fine marble was discovered here in 1804, and is now wrought for various purposes. Population, 3,600. *Bennington*, near the southwest corner of the State, has several manufactories and a marble quarry; a weekly newspaper is published here. This is one of the oldest towns of the State, and is celebrated in the history of the Revolution for the victory of General Stark over the British, in 1777. Population, 4,200.

Vergennes, on Otter Creek, at the head of navigation, 6 miles from the lake, has many factories and mills; this place was incorporated as a city some years ago, and is the only one in the State. Population, 1,200. *Rutland*, on Otter Creek, 55 miles from its mouth, is a flourishing and pleasant town, and has some manufactories. Population, about three thousand. *Norwich*, on the Connecticut, and *St. Albans*, on Lake Champlain, are also considerable towns.

3. *Agriculture.* What we have said upon this head in the State of New Hampshire, will apply with little exception to Vermont. Wheat is only cultivated west of the mountains. Maize thrives best on the intervals, but is also raised abundantly on the uplands. Farmers who are industrious, seldom fail of having their barns filled with hay and flax; their granaries with maize, wheat, rye, oats, barley, pease, and beans, and their cellars with the best of cider, potatoes, and other esculent roots. The raising of sheep has lately much increased, and wool has become the staple of Vermont. The number of sheep is above 1,000,000; annual clip of wool, 3,000,000 lbs.

4. *Commerce.* Lake Champlain affords facilities for a considerable commerce between this State and Canada. The trade in this quarter is chiefly with Montreal; the exports are pot and pearl ashes, beef, pork, butter and cheese, flax, live cattle, &c. The domestic trade is mostly with Boston, New York, and Hartford.

5. *Manufactures.* Except the domestic fabrics of linen and woolen which occupy almost every family, the manufactures of this State are not considerable. There are, however, above 100 woolen and cotton manufactories, paper mills and oil mills, and also 100 tanneries. Maple sugar is made in nearly every town and family in the State; the average quantity made by each farming family is estimated at 150 pounds, amounting to 6,000,000 pounds a year. Pot and pearl ashes, and iron are also manufactured in various parts. There are manufactories of copperas from native sulphuret of iron, at Strafford and Shrewsbury. The ore is detached from the bed by blasting; it is then beaten to pieces with hammers, and thrown into large heaps, where it lies exposed to the air and moisture until a spontaneous combustion takes place, and the whole heap is converted from the *sulphuret* to the *sulphate* of iron; this usually takes several weeks. After this, it is removed to the leaches, and water passed through it, which dissolves the copperas and leaves the earthy matter behind. The water is then conveyed into leaden boilers, and boiled to a certain degree. After this, it is transferred to other vessels, where it cools, and the copperas crystalizes. These manufactures are sufficiently productive to supply the whole United States. They are owned principally in Boston. In Peru and Bennington are many iron founderies.

6. *Population.* The population of the State of Vermont was, in

1790, ...	85,417	1820, ...	235,764
1800, ...	154,465	1830, ...	280,652
1810, ...	217,713	1840, ...	

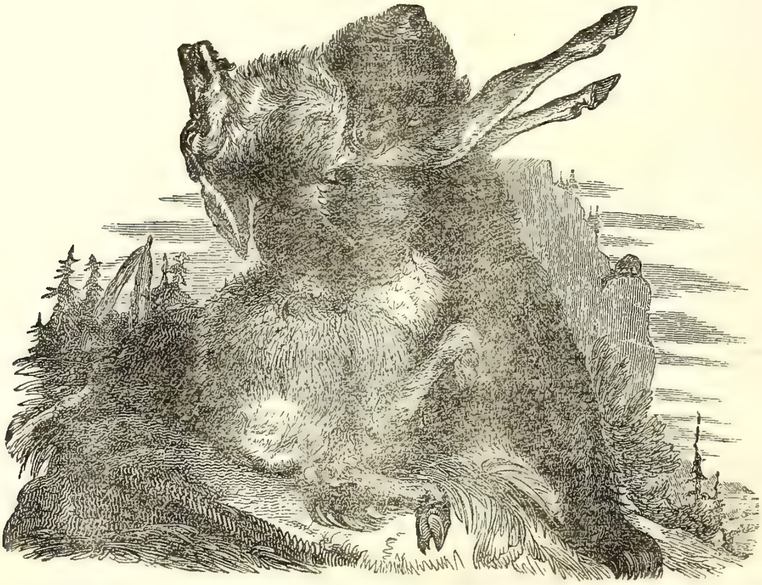
7. *Government.* The legislature of Vermont is composed of a Senate and a House of Representatives, called the General Assembly, and chosen annually; each town has one representative. The executive officers are a Governor, Lieutenant-Governor and a council of 12, chosen annually, by general ballot; all residents in the State of one year's standing are voters. There is also a council of *censors* chosen every 7 years; they are 13 in number, and hold their

office for a year; their duty is to inquire whether the constitution has been preserved inviolate during the period preceding their appointment, and whether the legislative and executive branches have done their duty, and to suggest alterations in the constitution. The legislature meet at Montpelier, in October. Vermont sends 5 representatives to Congress. The revenue of the State is derived chiefly from direct taxation. The expenditures amount to about 60,000 dollars.

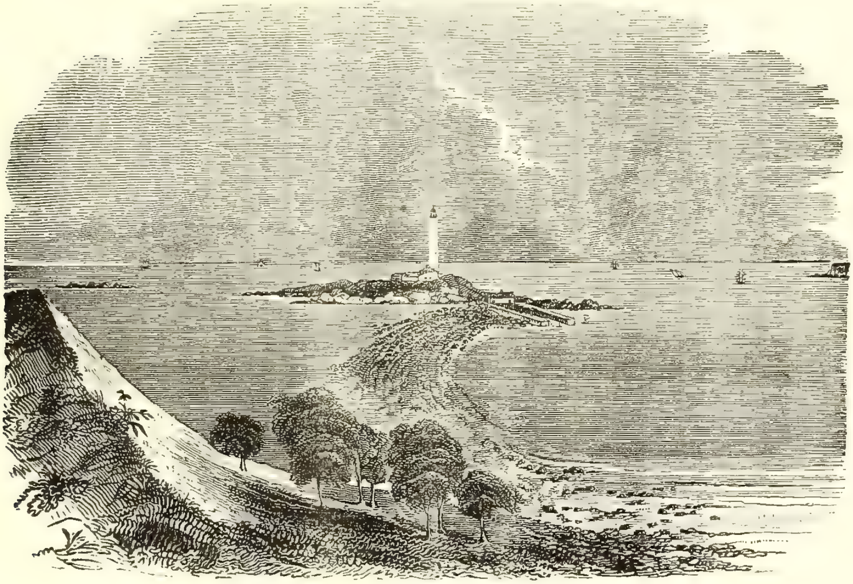
8. ***Religion.*** The Congregationalists have 203 churches and 110 ministers; the Baptists, 105 churches and 56 ministers; the Methodists have 44 ministers; the Episcopalians have 11 churches. There are two Unitarian churches, one at Burlington and one at Brattleboro'.

9. ***Education.*** Vermont has two colleges. *Burlington College*, which bears the title of the University of Vermont, was incorporated in 1791. This institution is finely situated on the east side of the village of Burlington, one mile from Lake Champlain, 245 feet above the surface of the water. The buildings are spacious brick edifices, containing a chapel, lecture rooms for public uses and for students, &c. The officers are a president and 6 professors. *Middlebury College* was incorporated in 1800. The buildings are two; one of wood, containing a chapel and 20 rooms for students; the other is a spacious and elegant stone edifice, 180 feet by 40, four stories high, having 48 rooms for students. The officers are a president, five professors, and two tutors. At Norwich, on the Connecticut, is an institution called the *Norwich University*. Academies and schools are numerous in this State, as in other parts of New England. Each town is obliged by law to support public schools; the number of school-districts is 3,800, with 5,100 teachers.

10. ***History.*** Vermont was first explored by the French settlers of Canada, but the earliest settlement within the territory was made by the English of Massachusetts, who, in 1724, more than 100 years after the discoveries in the northern parts by Champlain, established themselves at Fort Dummer, on the Connecticut. Six years after this, the French advanced from Canada, up Lake Champlain, and settled at Crown Point, and on the eastern shore of the lake. The claim to the country was afterwards disputed by New Hampshire and New York; and the country was known as the New Hampshire Grants. The British Parliament decided in favor of the latter State, but much confusion and altercation were caused by the conflicting grants of land made by the New Hampshire and New York governments. The disputes thus occasioned, remained unsettled during the revolutionary war; after which, New York compounded for her claim, and Vermont became an independent State. She was received into the Union in March, 1791.



CHAPTER VIII. MASSACHUSETTS.



Entrance to Boston Harbor and Boston Light.

PHYSICAL GEOGRAPHY.

1. ***Boundaries and Extent.*** Massachusetts is bounded N. by Vermont and New Hampshire; E. by the Atlantic; S. by Rhode Island and Connecticut; and W. by New York. It extends from 41° 10′ to 42° 52′ N. lat., and from 69° 50′ to 73° 20′ W. long. Its greatest length is from E. to W., which, reckoning the peninsula of Cape Cod, is 190 miles; its breadth is about 90. Its area is computed at 7,800 square miles.

2. ***Mountains.*** That range, denominated in Vermont the Green Mountains, enters the west part of Massachusetts from the north, forming the *Hoosac* and *Taugkannuc* ridges, which run nearly parallel to each other south into Connecticut. The Taugkannuck ridge is near the western boundary of the State; its most elevated peaks are ***Saddle Mountain***, in the north, 3,600 feet high, and ***Taugkannuc Mountain***, in the south, 3,000 feet. The Hoosac ridge has no summits much above half these elevations. It divides the waters of the Connecticut from those of the Housatonic. The *White Mountain* range enters this State from New Hampshire, a little to the east of the Connecticut, and running southerly, divides below Northampton, into the ***Mount Tom*** and ***Lyme*** ranges. *Mount Tom* and ***Mount Holyoke*** are single peaks in this range; the first is 1,200, and the second 910 feet above the level of Connecticut river, which flows between them. East of this range are some detached groups. ***Wachusett***, a single mountain toward the east, is 3,000 feet above the level of the sea. ***Saddle Mountain*** is in the northwest corner of Massachusetts, and is the highest point of land in the State. It consists of a ridge 6 miles long, with two distinct summits. The ascent begins at Hoosac river, but for a mile and a half it is a very gradual acclivity. The mountain is covered with forests of maple, beech, cherry, and birch, with large patches and streaks of evergreens; the rocks are a shining schistus, of a beautiful light blue, and lamellated with a smooth, brilliant surface. The soil is rich up to the summit, and abounds with springs. Near the highest point is a pond. Clouds hang about the mountain almost perpetually, and its surface is covered with leaves, moss, and other spongy materials, fitted to retain moisture. From the summit, a very grand and extensive view is afforded. The Catskill Mountains appear in the west, the Green Mountains in the east, nortn, and south, with the peaks of Monadnock, Taugkannuc, and Mount Tom, at 40 or 50 miles' distance.

An extraordinary phenomenon, which the inhabitants describe as the ***bursting of a cloud***, took place upon this mountain in the autumn of 1784. A deluge of water came pouring down the western side of the mountain, about the dawn of day, in a wide column 20 feet in depth sweeping away trees and rocks in its course. The tenants of a house on the banks of the Hoosac, being awakened by the roaring of the torrent, had much difficulty in saving themselves, and their dwelling was swept into the river. For two miles the stream overflowed its banks to the height of 10 or 12 feet. A tract of land, 10 acres in extent, was entirely stripped of trees by the torrent, and a channel 20 feet deep was worn down the side of the mountain.

Mount Holyoke, near Northampton, on the Connecticut, is much visited by travelers for the beauty of its prospect. It has a good carriage road most of the way up, and a building on the summit for the accommodation of visiters. The beautiful valley of the Connecticut is spread beneath it, bordered by distant ranges of hills, covered with the richest vegetation, and sprinkled over with villages and farm houses. The river has a beautiful serpentine course, from the foot of *Sugar Loaf Mountain* and *Mount Toby*, amid meadows, gardens, and villages. Beyond the river is seen *Mount Tom;* in the northeast appears *Monadnock*, and *Saddle Mountain* in the northwest, while under the feet of the spectator are the villages of Northampton and Hadley, with more than 30 church spires scattered over the landscape.

3. *Valleys.* The valley of the Connecticut, which, varying in width, extends through the State from north to south, consists for the most part of a sandy alluvion. The lower flats are fertile, producing rich crops of maize, rye, oats, barley, and hay. In the vicinity of Hatfield, in this valley, are extensive fields of broom-corn, and the manufacture of this article into brooms, absorbs a considerable portion of the labor of the towns in the neighborhood. A portion of this valley is occupied by sandy tracts which yield light crops of rye and maize. Some of these plains are covered with low pine forests. The valley of the Housatonic extends nearly in the same direction with that of the Connecticut, and consists of alluvial tracts of the same description. The valley of the Hoosac is in the northwest ; it consists of an almost uninterrupted succession of interval, about a mile in width, extremely rich, and ornamented with the liveliest verdure. The waters of this stream are remarkably limpid, and wind their way along this valley, through luxuriant meadows and pastures, green to the water's edge, and fringed with willows, or crowned with lofty trees.

4. *Rivers.* The *Connecticut* enters the western part of this State, and flows south into Connecticut. The tract which it waters in Massachusetts is 50 miles in extent, but its course is meandering. In this distance it receives Deerfield and Westfield rivers from the west, and Miller's and Chickopee rivers from the east. The *Housatonic* rises in the northwest corner of the State, and flows south into Connecticut ; receiving the waters of the valley between the Hoosac mountains on the east and the Taugkannuc range on the west. The *Hoosac* rises in the same quarter, and flows northwesterly into New York. The *Merrimack* enters the State in the northeast, and flows easterly 50 miles to the sea at Newburyport ; in this course it receives Concord and Shawsheen rivers from the south. The greater part of *Nashua River*, which falls into the Merrimack in New Hampshire a few miles north of the Massachusetts line, is in Massachusetts. *Charles* and *Neponset* rivers, in the east, join the sea at different points in Boston Bay. *Pawtucket* and *Taunton* rivers in the south flow into Narragansett Bay. Only two of the abovementioned rivers have any considerable navigation. The Merrimack is navigable for vessels of 200 tons to Haverhill, 15 miles from its mouth ; to this point the tide extends ; at some distance above are rapids ; at its entrance into the sea it expands to a mile in width and forms the harbor of Newburyport. The Connecticut, though obstructed by falls at different points, is susceptible of boat navigation, and in Massachusetts is from 80 to 100 rods wide. Small steamboats run on this river between Windsor and Hartford. The general character of this stream we have elsewhere described.

5. *Islands.* *Nantucket*, 20 miles south of the mainland at Cape Cod, is an island of triangular form, about 15 miles long and 11 broad, in the widest part, containing 30,000 acres. It is little more than a heap of sand without a tree of native growth upon it, yet it maintains a numerous population, distinguished for their activity and enterprise. The island affords some pasturage, and cows and sheep in considerable numbers are raised ; the land being held in common, they feed in one pasture to the amount of several thousands. But what gives this island its chief importance is the whale fishery, in which almost all the inhabitants are engaged. The Nantucket whale ships are found in every quarter of the globe, and their seamen are regarded as the most adventurous and skilful in the world. The climate of this island is much milder than that of the neighboring continent ; and the soil, though sandy, is in some parts productive, bearing fruits and grass ; a century ago it was covered with trees. Southeast of this island,

out of sight of land, lie *Nantucket Shoals*, a dangerous reef of sand, 50 miles in extent. *Martha's Vineyard*, west of Nantucket, and lying nearer the continent, is 20 miles long, and 10 broad. This island has a good soil, and in the western part is somewhat elevated , it has many productive farms, and contains the town of Edgarton, which has a good harbor. Holmes's Hole is a safe and commodious harbor in the north part of the island, much frequented during the winter by inward bound vessels. The *Elizabeth Islands* are a chain of 16 small islands lying northwest of Martha's Vineyard, and forming the southeast side of Buzzard's Bay ; a part of them only are inhabited. A multitude of islands lie in Boston Bay, some of them very beautiful, but none sufficiently large to merit a detailed description.

In the north of the State, at the mouth of the Merrimack, lies *Plum Island*, nine miles long, and one mile wide. On the side towards the ocean, it consists of sand-hills, 20 or 30 feet high, thrown into a thousand fantastic shapes like snow-drifts in a storm. These hills are covered with low bushes bearing the beach-plum, a fruit about the size of a musket ball, and of a pleasant taste ; wild cherries and grapes also grow in different parts. On the side towards the land, a tract of salt meadow extends the whole length of the island, and at the southern extremity, which forms a point at the entrance of Ipswich harbor, the soil becomes loamy and arable ; here are one or two small farms. The sound which separates the island from the continent, varies from a mile to a quarter of a mile in width ; this is crossed at the north part by a bridge three miles from Newburyport. In the early part of autumn, the plums are ripened, and the island then becomes the resort of numerous parties of pleasure from the neighborhood, who pitch their tents among the sand-hills, and gather the fruit, or enjoy the cool sea breeze along the smooth beach which skirts the outer side of the island. At the northern extremity are two lighthouses and a hotel.

6. *Bays, Harbors, &c.* *Massachusetts Bay*, between Cape Ann on the north and Cape Cod on the south, is about 40 miles in breadth. Within this lies *Boston Bay*, which comprises the space between Point Shirley in the north, and Point Alderton in the south, and includes the harbors of Boston, Dorchester, Quincy, and Hingham, with Nantasket and President roads, and the numerous islands within the Boston lighthouse. In the south of Massachusetts Bay is *Cape Cod Bay*, 15 or 20 miles in breadth, lying between Cape Cod and Plymouth ; within this are *Barnstable* and *Plymouth bays*. In the south of the State is *Buzzard's Bay*, on the southwest side of Cape Cod, 20 miles deep, and containing the harbor of New Bedford.

7. *Shores, Capes, and Peninsulas.* In the north part of the State, the shore is rocky and bold. *Cape Ann*, the northern limit of Massachusetts Bay, is a rocky promontory 15 miles in length, containing several good harbors. The peninsula of *Cape Cod*, in the southeast part of the State, is about 75 miles long, and from 5 to 20 miles broad ; its shape is nearly that of a man's arm bent inward at the elbow and wrist. The greater part of the peninsula is a barren desert ; in the southwestern portion, the land though flat and comparatively sterile, is under some cultivation, but the northern part consists almost wholly of hills of white sand, entirely destitute of vegetation, or producing only whortleberry bushes, low pitch-pine shrubs, or coarse, wild grass. The sand is continually blown about by the wind, and the pine trees are often buried in it, and killed. The houses, in some places, are built upon stakes driven into the ground, with open spaces between for the sand to drift through. The cape, notwithstanding, is well inhabited, and supports a population of 30,000. Nothing is raised in the northern part except a few cows. In the southwestern part, the inhabitants live by agriculture and trading ; in the north altogether by fishing. The cape abounds with clear fresh ponds, well stocked with fish ; it is beset with dangerous shoals, and has long been the dread of mariners. A storm is generally sure to make it the scene of numerous shipwrecks. There appears to be some evidence that the land is wearing away ; stumps of trees being discovered under water along the shore. At the first settlement of the country, there was an island east of the cape, about nine miles out to sea, which was 20 acres in extent, and covered with savin and cedar trees ; for a century this island has been entirely submerged, and the water above is six fathoms deep. The peninsula of *Nahant*, a few miles north of the harbor of Boston, is connected with the mainland by Lynn beach, a smooth and level floor of sand, two miles in length. Nahant is now become a favorite place of resort for the inhabitants of Boston during the heat of summer ; the hotels are thronged with company, and a great number of neat cottages, occupied as summer residences, adorn the place. Steamboats ply between Nahant and Boston every day during summer.

8. *Climate.* The winters are severe, and deep snows bury the earth many feet every

season. Excessive cold of short continuance generally occurs during the month of February. The heat in summer is at times excessive, although like the cold in winter, such intensity commonly terminates after a few days, and is not felt more than two or three times in a season. The nights are seldom otherwise than cool and refreshing. About the first of March the ice in the rivers breaks up ; but snow-storms often occur after that period, though the ground is generally clear of snow in the course of the month. During March and April, northeast winds are sure to prevail, commonly accompanied with rain, but always damp, cold, and disagreeable. This is decidedly the most unpleasant part of the year ; but in May the weather becomes settled, and, after the first thunder-showers, south and west winds blow, the heavens are clear, and a warm sun gives the first effectual impulse to vegetation. In general the spring is about a week earlier than in New Hampshire. Potatoes and pease may be planted by the 22d of March ; the peach-tree is in bloom, April 15th ; the apricot, April 25th ; cherry, May 10th ; apple, May 15th ; maize is planted May 15th ; ripe apples are in market early in August.

The finest weather is in June, August, and September. In the first of these months, immediately after the cessation of the spring rains, the sky becomes serene, and a rapid vegetation covers the earth with a luxuriant mantle of verdure. In July the weather is hot and clear, with the exception of thunder-storms. In the early part of August, it is very sultry, but towards the end of that month and throughout the following, the air is temperate, clear, and elastic, the nights cool and serene, and the weather in every respect delightful. Frosts occur in October, but it is rare that snow falls in that month. Heavy rains fall in October, and November ; snow-storms are sometimes experienced in the latter month, but the winter cannot be considered as fairly set in till December. Snow which remains for any length of time, does not commonly fall before the middle of this month. All the rivers are frozen for two or three months, and sometimes, though not often, the harbors on the coast for a week or a fortnight, are closed by the ice.

9. *Natural Productions.* The latitude, elevation, and geological character of Massachusetts, differ so slightly from those of the States already described, that we cannot expect any great diversity in the products of the soil. Most, if not all of the forest-trees already enumerated, are natives of Massachusetts. Though this was settled before any other New England State, the forests still occupy a large portion of its surface. These have a remarkably fresh and healthy look ; the clean and smooth bark of the walnut, maple, beech, birch, and others, show no traces of the mossy covering, which a humid air engenders in a European wood. Of oaks we have 30 or 40 distinct varieties ; the stately white pine and hemlock exceed in height those of the old world. The most noble and majestic of our trees, and that which in form, color, and size, the most strikingly surpasses its European rival, is the American elm, which is planted in our cities and towns for ornament. The great elm in the middle of the Common in Boston, has long been celebrated for its height and elegance ; but the largest in the country is near Newburyport, about a mile from the centre of the town. This noble tree is one third larger in cubic extent and 25 feet higher than the Boston elm. It is now growing with the rapidity of a young sapling, and at two feet from the ground, measures 21 feet in circumference. Its droppings extend 96 feet ; it is of a perfectly regular shape, and covered with the richest foliage. It was planted in 1713.

10. *Soil.* In the southeastern part of the State, the soil is light and sandy, with occasional fertile tracts. The middle and western parts have a strong, rich soil, excellent for all purposes of agriculture ; in the northern portion on the seacoast, the land is not naturally very fertile, but by skilful culture is highly productive. Salt marshes are numerous in all the maritime parts.

11. *Geology.* The rocks of the New England States are almost entirely primary. In Massachusetts, there is a strip of transition or older secondary formation covering part of the primary, and extending from Boston southwesterly to Rhode Island, from 10 to 15 miles in width. Red sandstone forms the bed of the Connecticut in Massachusetts and Connecticut, and is in parts covered with ridges of greenstone trap. The mountains toward the west of the State consist of mica slate, clay slate, hornblende, limestone, granite, gneiss, quartz, and other siliceous rocks. In the east, sienite, porphyry, pudding-stone, serpentine, &c. occur. In the northern part the primary rocks are washed by the sea.

12. *Minerals*, *Quarries*, &c. The finest building-stone is abundant in Massachusetts ; quarries of excellent granite, sienite, and gneiss are found in all parts of the State. The most

celebrated are those of Chelmsford and Quincy, which have supplied the materials for the finest structures in Boston, and some of the southern cities. Beautiful white marble is abundant, and extensively wrought at Lanesborough, Lenox, and Stockbridge; soapstone is found at Cummington and Middlefield; limestone, serpentine, and asbestos, at Newbury. Bog-iron ore is found at Carver, in Plymouth county; iron also occurs in several places in the county of Bristol. At Hawley, near the banks of Deerfield River, is an inexhaustible mine of magnetic iron ore, which has been wrought for many years. There is a copper mine at Greenfield, on the Connecticut, but it has been little explored. Yellow ochre is found at Templeton, in the county of Worcester. Anthracite coal exists in many places in the interior of the State, but no mines are wrought at present. The island of Martha's Vineyard produces abundance of argillaceous earth, from which alum is manufactured. Quarries of slate exist at Lancaster, Harvard, Bernardston, Charlestown, &c. The plumbago or blacklead of Sturbridge and Worcester is employed in making crucibles and lead-pencils, lubricating machinery, &c. The secondary rocks near Mansfield and West Bridgewater, contain anthracite coal. Copperas ore, or iron pyrites, is found at Hubbardston.

13. *Face of the Country.* The mountainous region occupies the western part of the State; still, that district cannot be called in general an elevated country. The middle and northeastern parts are lower, but hilly and broken. The southeast is the lowest part, and is in general level and sandy. East of Wachusett there are no high mountains.

POLITICAL GEOGRAPHY.

1. *Divisions.* There are 14 counties in Massachusetts. The number of towns is 313, besides three cities.

Counties.	*County Towns.*
Berkshire,	Lenox.
Franklin,	Greenfield.
Hampden,	Springfield.
Hampshire,	Northampton.
Worcester,	Worcester.
Dukes,	Edgarton.
Nantucket,	Nantucket.
Barnstable,	Barnstable.
Norfolk,	Dedham.
Plymouth,	Plymouth.
Bristol,	New Bedford. Taunton.
Suffolk,	Boston.
Middlesex,	Cambridge. Concord. Lowell.
Essex,	Salem. Newburyport. Ipswich.

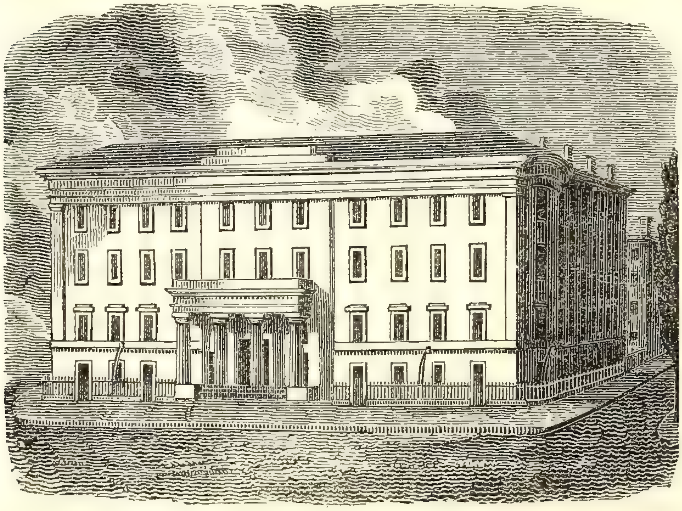
Boston is the capital.

2. *Canals. Middlesex Canal*, uniting the Merrimack with the waters of Boston harbor, was begun in 1793, and completed in 1804, at an expense of 575,000 dollars. It is 27 miles long, 30 feet wide, and 4 deep; it has 20 locks and 7 aqueduct bridges over valleys and streams. The canal leaves the Merrimack one mile above Pawtucket falls, and terminates in Charlestown Mill Pond, an artificial basin connected with Boston harbor. It is supplied with water by Concord River. The locks are 90 feet long and 12 wide, and are strongly built of hewn stone. By this canal, a boat communication is opened between Boston and the interior of New Hampshire. *Pawtucket Canal* was begun in 1793, and finished in 1797. It passes round Pawtucket falls, on the Merrimack, is 1½ miles in length, and was originally 30 feet wide and 3 deep, but was enlarged to 90 feet wide and 4 deep, in 1821, for the double purpose of navigation and conveying water to the manufactories of Lowell, in which town it is situated. *Blackstone Canal* follows the valley of Blackstone River from Worcester to Providence, R. I., 45 miles. It has 48 locks, all of stone, making a rise and fall of 450 feet. The locks are each 82 feet long and 10 wide. *Hampden and Hampshire Canal*, in continuation of the Farmington Canal, from Southwick to Northampton, is 20 miles long. *South Hadley Canal* and *Montague Canal* were constructed for passing falls in the Connecticut.

3. *Roads.* In the older towns, especially in the eastern parts of the State, the roads are generally good, and ample provision is made by law for their support. The towns are portioned out into districts, and surveyors are appointed to clear all obstructions, and keep the roads in repair. Turnpikes are numerous everywhere, and more than 60 turnpike companies have been chartered. Few of the turnpikes in this State have brought any immediate profit to the proprietors, but the facilities for traveling which they generally afford are very great.

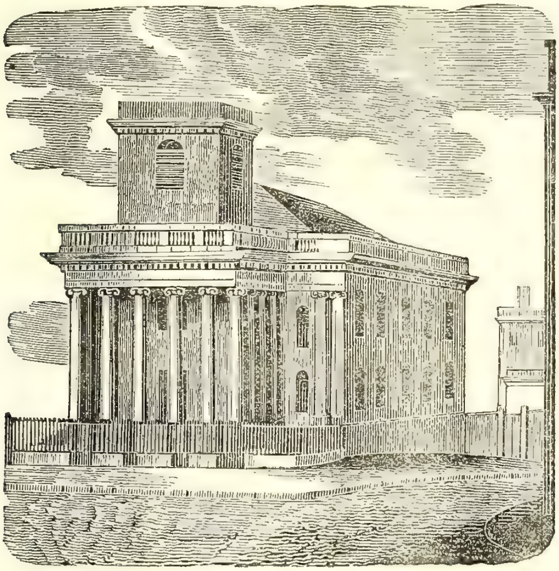
4. *Railroads.* These works have been constructed by joint stock companies, but the State has subscribed 3,000,000 dollars to the stock of the Western Railroad Corporation, and loaned its credit to the other companies. The *Quincy Railroad*, completed in 1827, 3 miles in length, from the granite quarries in that town to the river Neponset, was the first railroad constructed in the United States. The rails are of wood, iron bound, and laid upon a stone foundation There are four planes upon the road of different inclinations ; the track is single. On the summit of the hill from which the stone is quarried, stands a square tower, from which the spectator may view a delightful prospect. One of the faces of this tower contains an inscription commemorating the Quincy Railroad as the first undertaking of the kind in America. The *Boston and Lowell Railroad* extends from Boston to Lowell, 25 miles, with a branch from Wilmington to Haverhill, 18 miles ; the main road is built with double tracks, with the iron-edge rail and cast-iron chairs resting on stone sleepers. A continuation of this road extends from Lowell to Nashua, 15 miles, and a continuation of the Haverhill branch passes through the manufacturing towns in the southeastern part of New Hampshire into Maine. The *Eastern Railroad* from Boston through Salem to Newburyport, 33 miles, is nearly completed, and is to be continued to Portsmouth. The *Boston and Providence Railroad* is 42 miles in length, with a branch 11 miles long from Mansfield to Taunton, whence the *Old Colony Railroad* continues the line to New Bedford ; there is also a branch to the village of Dedham, 2 miles, and a terminus on Seekonk River, on the Massachusetts side. The *Worcester Railroad*, 43 miles, is a part of the great *Western Railroad* now in progress between Boston and the western boundary of the State, and which, with the other roads constructing or finished in New York, will connect Boston harbor with Lake Erie. The whole length of the Western Railroad, through Worcester, Springfield, and Pittsfield, is 160 miles. The *Worcester and Norwich Railroad* terminates at Norwich, Connecticut, 59 miles.

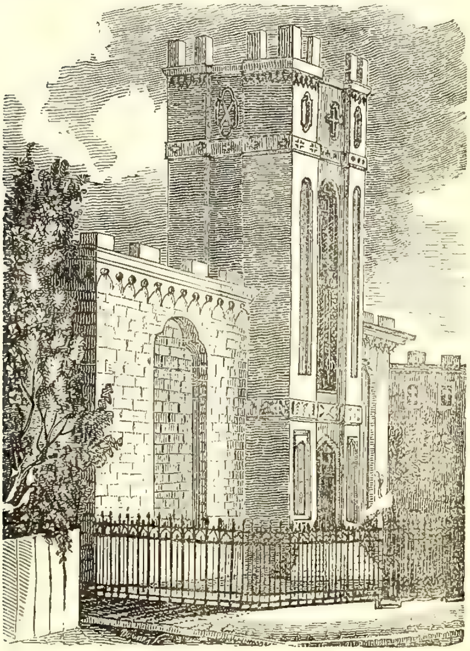
5. *Cities and Towns.* *Boston*, the largest city in the New England States, and the capital of Massachusetts, stands on an oblong peninsula at the bottom of Massachusetts Bay, having a beautiful harbor, shut in from the sea by a group of islands. The peninsula is hilly, and in almost every part covered with buildings ; the city exhibits a noble appearance as the spectator sails up the harbor or approaches it from the country. This splendid exterior, however, has not a corresponding regularity and symmetry within. The city was built, almost from the beginning, without any regard to plan, beauty, or future convenience, and the streets were left to fashion themselves into a tortuous intricacy, that might have excited the envy of Dædalus of old. We must except, however, the happy reservation of the vacant spot called the Common, originally a cow-pasture for the housekeepers of the town, but now a public park and promenade of unrivalled beauty. In the more ancient parts of the city, the streets are still narrow and crooked, and many of the buildings are of wood. In the western and central parts, a style of elegance and comparative regularity prevails. Many of the streets are neat and spacious, and the improvements which are going on yearly in widening the old streets, and opening new ones, have done, and are doing much to remedy the defects of the original plan. In the greater part of the city, the houses are either of brick or stone, and the old wooden structures are fast disappearing. Few of the public edifices are of striking elegance, but the private buildings surpass those of most cities in the United States. The State House, from its lofty and commanding position, is the structure which first catches the eye in approaching the city. It stands on the summit of Beacon Hill, fronting the Common ; it is built of brick, painted of a Portland stone color, and is spacious and lofty, with a dome and cupola. Within, the visiter



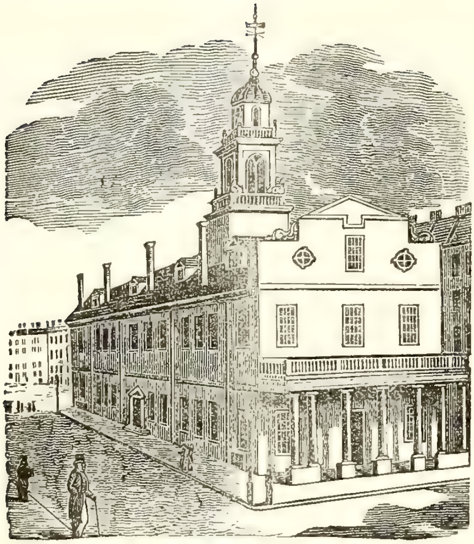
Tremont House.

may be gratified with a view of the statue of Washington, by Chantrey. As we descend from the State-House toward the mercantile part of the city, the Tremont House attracts our attention; this is a spacious and splendid hotel, unsurpassed in the country for elegance of structure, and the style of its accommodations. The front of the pile is of Quincy granite, ornamented with a neat portico; the wings are brick, with stone basements, and, with the front, form three sides of a quadrangle; the number of apartments contained in the whole is 180. Opposite this hotel is the Tremont Theatre, the front of which is neatly built of granite; the interior is both splendid and tasteful. A few steps onward, stands the ancient edifice called the King's or Stone Chapel, with its square tower and massive colonnade, producing a noble effect by the simple dignity of its architecture. In an opposite direction, on the same street, and fronting the mall, is St. Paul's Church, a granite edifice in the Doric style, with a façade of freestone, comprising a portico of six pillars. This church is one of the finest in the city; the simplicity of its interior is peculiarly striking. The stone structure on Church Green, with its octagonal shape and tall spire, though of a fantastical design, has its admirers. The Park-street Church, at the head of the Mall, attracts attention by the towering height of its steeple. The Old South, in the centre of a busy district, is beheld with interest, from its historical associations. The tower of the Brattle-street Church still exhibits in its front the cannon-ball shot into it from the batteries of the besiegers, in 1775. Trinity Church, in Summer Street, a massy structure of rough granite, with a lofty square tower, affords a specimen of mixed gothic architecture. The church in Bowdoin Street, a gothic edifice of rough stone, is in the same style, on a somewhat smaller scale.


Stone Chapel.


Trinity Church.

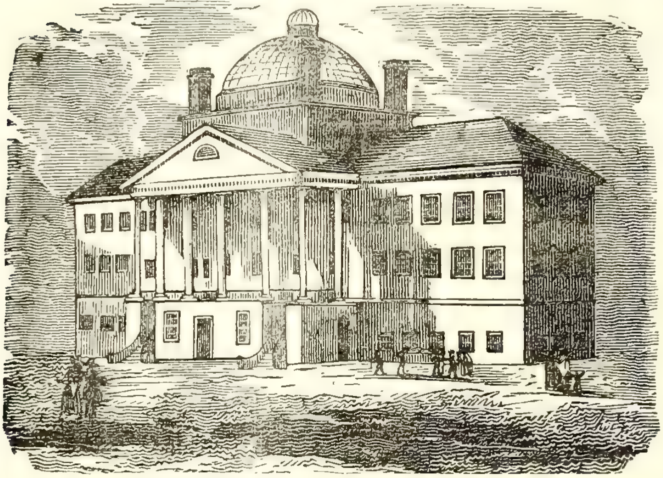
The largest building in the city is Faneuil Hall Market, a granite structure, two stories in height, and 536 feet long. The centre has a dome, and at each end is a portico of four columns, each of an entire stone. This is the most elegant market in the United States, and probably in the world; on either hand it fronts on a spacious street, one 65 and the other 102 feet in width, both showing a solid front of stone stores, of uniform height and appearance. Old Faneuil Hall stands west of this spot; it is a lofty brick edifice, and the spacious galleries of its interior, still witness the throngs and the oratory of popular meetings. Painting and repairs have a little modernized the aspect of this venerable pile. The Old State-House, now the City Hall, is another relic of ancient architecture, and the scene of many events in revolutionary history. In this building are now the Merchants' Reading Room, the Post Office, and other public offices. In the neighborhood is the new Court-House, a massive structure of granite, and a new City Hall is in progress in the same vicinity.



Old State-House, Boston.

The wharves of Boston surpass those of any seaport of the United States, for size and convenience. Long wharf, at the bottom of State Street, is 1,650 feet long, and has a line of lofty brick stores nearly its whole extent. Central wharf is 1,240 feet in length and 150 wide, and contains 54 stores in a single pile, with a spacious observatory in the centre, where telegraphic signals are received from the islands in the bay. India wharf has a double row of stores six stories high; all these wharves have spacious docks, and wide and convenient landings, carriage-ways, &c. A handsome custom-house, of granite, now nearly completed, is one of the ornaments of the city. There are several marine railways.

The Massachusetts General Hospital is a substantial stone edifice, much commended for the convenience of its interior arrangements. The Houses of Industry, Correction, and Reformation, with an Insane Hospital for the poor, on the peninsula of South Boston, which is connected with the rest of the city by two wooden bridges and within the city limits, are of stone, and of a solid architecture. The Perkins Asylum for the Blind occupies a commanding situation in this section. The court-house and jail in Leverett Street are of stone, and comprise three well-built edifices. The United States bank in State Street is a well-built structure, but more remarkable for strength than classic proportion; the columns in front are the largest in the city, and are each of a single stone. The Washington Bank has a more symmetrical design and better effect. The Masonic Temple is a neat building of granite, and has a fine front.



Massachusetts General Hospital, Boston.

The great ornament of Boston is its Common, a space of 50 acres, occupying the southerly slope of Beacon Hill, surrounded by a mall planted with elms, and fronted with elegant buildings in every quarter except the west, where it is left open, and affords a beautiful prospect into the country. On this side a Botanic Garden, which covers about 25 acres, has been tastefully laid out, adding much to the beauty of the spot. The avenues to the city are eight. Roxbury neck, the western causeway, and six bridges; two of which lead to Charlestown, two to Cambridge, and two to South Boston; these bridges are of wood, and built upon piles driven into the bed of the river. The longest is West Boston bridge, leading to Cambridge, 3,483 feet in length. The western causeway or avenue, serves as a dam to the great mill basin, and is a solid mass of materials faced with stone, a mile and a half in length, and 50 feet in width. A branch of this dam separates the enclosed space into an empty and full basin, and the mills which are here situated, are in operation at all times of the tide. *South Boston* consists of a part of the peninsula formerly belonging to Dorchester, and is rapidly increasing in the number of buildings and inhabitants; here are extensive manufactories of glass, iron, &c. *East Boston* has lately sprung up on a large island in the harbor, and having deep water along shore is already become the seat of much mechanical industry. The Eastern railroad terminates here, and steam ferryboats keep up a communication with the main city.

In literature, Boston has always maintained a high rank. Public libraries are numerous but small; the number of books they contain amounts to 70,000. One of these, the Athenæum, has 33,000 volumes and a reading-room where some of the most valuable periodicals from Europe are received. Annexed to this is a picture gallery in which there is an annual exhibition of paintings. 30 newspapers are published in the city, 8 of them daily, and several magazines and other periodicals; among them may be mentioned the North American Review, which is the oldest literary journal of our country, the Boston Review, the Journal of Education, and Christian Examiner. The New England Museum may amuse the visiter who has a taste for wax figures and miscellaneous rarities. As a scientific collection, the cabinet of the Boston Natural History Society is one of the best in the country.

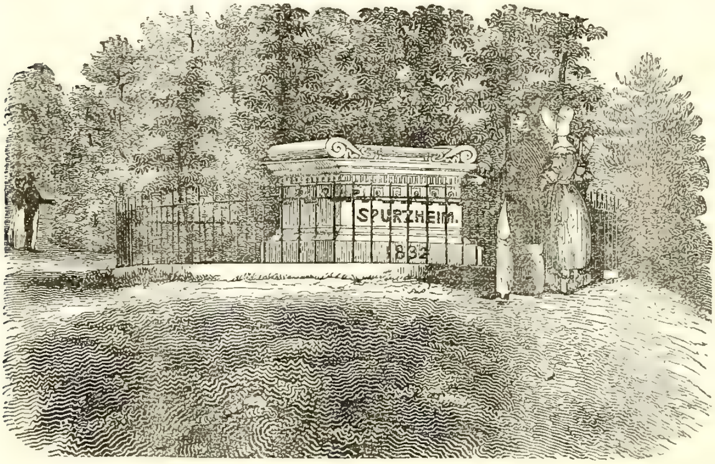
As a commercial city, Boston holds the second rank among the seaports of the United States The shipping owned here amounts to about 230,000 tons. The value of the yearly imports is about 16,000,000 dollars, and of the exports 10,000,000. This statement, however, includes only the direct foreign trade; the amount of the coastwise imports and exports is probably threefold or fourfold that of the foreign. The number of banks is about 30, with a capital of 20,000,000 dollars, of insurance offices nearly the same, with a capital of about 8,000,000. There are many manufactories in the city and vicinity, of glass, iron, cordage, leather, chemical preparations, hats, clothing, furniture, machinery, musical instruments, every thing connected with ship-building, printing, &c. The annual value of the manufactures is about 12,000,000 dollars. Much of the wealth of the capitalists of Boston is invested in the manufacturing establishments at Waltham, Lowell, and other places in the State.

There are 80,000 inhabitants within the limits of Boston, but including those parts of Charlestown, Cambridge, and Roxbury, which in point of contiguity may be regarded as appendages to the city, the whole population of the capital will exceed 100,000. Boston was founded in 1630, and was called by the Indians, *Shawmut*, and by the early settlers *Trimountain* or *Tremont*, from the three hills which struck the view of the spectator on approaching the spot. It retained the denomination of a town, and continued to be governed by a body of Selectmen, according to the ancient New England custom, till 1821. From that period its concerns have been directed by a city government, consisting of a Mayor, 8 Aldermen, and a Common Council of 48 members, all chosen annually in January. In connexion with the town of *Chelsea*, on the opposite side of the harbor, Boston forms the county of Suffolk, which is represented in the Senate of Massachusetts by six Senators. The city sends one representative to Congress. Its yearly expenditures amount to 500,000 dollars, of which 90,000 are appropriated to the support of schools; 80,000 for repairing streets; 50,000 for the poor. The free or public schools are a Latin grammar school, open to all boys between nine and fifteen years of age; a high school, in which are taught mathematics and other higher branches of knowledge; 10 grammar and writing schools with two masters each; 75 primary schools, and one African school; number of pupils 8,850.

The roads leading to the city are good, and are provided with numerous and convenient inns. The accommodations for traveling are excellent, and there are more stagecoaches running from Boston than any other city in America. Until the opening of the railroads, there were nearly a hundred different lines of stages, and the regular arrivals and departures were about 250 daily. During the summer there are steamboats plying between the city and Portland Nahant, and Hingham. The view which the country around Boston presents to the eye is enchanting. On every side appear towns, villages, country seats, gardens, and cultivated fields intermixed with every graceful variety of hill, dale, and forest. From the dome of the State house a prospect is afforded, which has been compared to the bay of Naples, and the view from Castle Hill at Edinburgh. The harbor of Boston spotted with islands; the city with its wharves crowded with shipping; the bridges and avenues thronged with passengers; the suburbs of Charlestown and East Cambridge, themselves compact and populous towns; the picturesque villages and hamlets scattered about among the hills in every direction, with their white houses, and tall spires peeping out from among the trees; the distant view of the bay, and ocean to the east; the blue water, dotted with white sails, — all unite in producing a panorama of surpassing beauty.

Charlestown is in point of locality a suburb of Boston, and is connected with the city by three bridges, and with Chelsea and Malden by two. The more compact part of the town is built on a peninsula, the centre of which is occupied by Bunker Hill. The houses stand on the eastern and southern slope of the hill, and along its base. The main street is a mile in length, and there is a spacious and handsome square in the southern part. It is a pleasant but irregular town, and the views of the city, with the harbor and the neighboring country, which are exhibited from the elevated parts, are exceedingly beautiful. The Bunker Hill Monument, commenced a few years ago, is upon the southern brow of the eminence immediately overlooking the town, upon a commanding site. It is a plain obelisk of gray granite, and its height is to be 220 feet ; the base is 50 feet square. A portion of it only is completed, and the work has been for some time at a stand. The *United States Navy Yard*, at Charlestown, occupies 60 acres of ground, and comprises a great number of stores, arsenals, magazines, and barracks. The dry dock is a noble and imposing piece of workmanship, built of hewn granite, in the neatest and most solid manner. It contains half a million cubic feet of stone work. The slips for ship-building are covered with frame houses, sufficiently large to contain first-rate line of battle ships. The yard is enclosed on the land side by a high stone-wall. On the western side of the peninsula, at the water's edge, stands the *Massachusetts State Prison*, consisting of several large piles of building, surrounded by a lofty wall. Nearly all the buildings are of stone, and a great part of the convicts are employed in hammering stone for building ; others work at shoemaking, tailoring, smith's work, &c. They are dressed in parti-colored clothes, and are attended, while in the yards, by a guard with muskets. The *McLean Insane Asylum* stands upon a beautiful eminence in the western part of Charlestown, without the peninsula, and consists of several piles of building, with accommodations for 130 patients, who are encouraged to engage in cheerful and healthful labors and amusements. No part of the country offers more beautiful sites than this town. Winter Hill and Prospect Hill, as well as most of the others already mentioned, retain vestiges of the fortifications erected during the Revolution. Population of Charlestown, 10,000.

Cambridge lies west of Boston, and consists of three distinct portions. East Cambridge, a suburb of Boston, is situated upon Lechmere Point, and is connected with the city and Charlestown by Craigie's bridge. It is built of brick, and has several manufactories of glass, iron, &c. Cambridgeport is joined to Boston by West Boston bridge. Old Cambridge is three miles from Boston, and contains Harvard University. This part of the town stands upon a level spot, and encloses a spacious and handsome common. In the western part is Fresh Pond, a beautiful piece of water, bordered by steep hills and woods ; it is much resorted to for recreation in summer, by the inhabitants of Boston. The whole population of Cambridge is about 7,800. In the southwesterly part of Cambridge is *Mount Auburn*, a beautiful hilly grove, which has been devoted to the purpose of a cemetery for the metropolis, and one of the most interesting spots in the country.



Monument to Spurzheim, at Mount Auburn.

Roxbury, adjoining Boston on the south, is remarkable for the mingled wildness and beauty of its scenery, presenting fertile valleys and broad plains interspersed with bold heights and rugged, rocky tracts. Its numerous picturesque sites are crowned with neat cottages and elegant country seats, and, among the workshops and factories are a chemical laboratory, iron works, &c. Numerous omnibuses are constantly running between this town and the city. Population 7,500. *Brighton*, four miles from Boston, is distinguished for its Cattle Market, which has been held here from the time of the Revolution. The annual value of the sales is 2,000,000 dollars. *Watertown* and *Waltham*, adjoining towns, may be noticed, the first for its spacious arsenal, belonging to the United States, and the second for its manufactures.

The city of *Salem*, 14 miles north of Boston, the second town in the State for wealth and commerce, is situated on a peninsula formed by two small inlets of the sea. The streets are narrow, and the houses generally of wood, but many of the modern edifices are of brick, and display much elegance. The Common, an enclosed spot, planted with trees, is an ornament to the place. Salem contains an Athenæum of 10,000 volumes, a very valuable Museum, belonging to the East India Marine Society, nine banks, and 18 churches. The commerce of the town is extensive, nearly one half of it being with the East Indies. The India trade has long been prosecuted by the Salem merchants, and great fortunes have been the result of their enterprise. Shipping belonging to the city, 35,000 tons. The manufactures are also extensive. A bridge, 1,500 feet in length, connects this town with Beverly. Population 15,000. *Beverly* is a suburb of Salem, and lies on the north side of an inlet communicating with Salem harbor. The town is pleasantly situated on a slope inclining to the south, and consists principally of one long street, which passes through the great post-road from Boston to the east. Beverly is a place of considerable wealth, and is largely concerned in the fisheries. Population 4,600. *Danvers* is chiefly engaged in mechanical and manufacturing industry. Population 4,800. Boots and shoes, bricks, pottery, leather, nails, &c. are among the products of its industry.

Lynn, on the coast between Boston and Salem, is a pleasant and flourishing town, supported almost solely by the manufacture of shoes, of which about two and a half million pairs are made annually. The peninsula of Nahant is here joined to the continent by a beach of sand a mile and half in length. Iron works were established in Lynn as early as 1645 ; and in this town there is a chocolate manufactory. Population 9,300.

Newburyport, at the mouth of the Merrimack, is remarkable for the beauty of its situation, and the regularity of its streets. It stands upon a gentle declivity, sloping down to the river ; the streets are generally straight, and at right angles, and the town lies along the bank of the river, for about a mile. The principal streets pass through the whole width of the town, from the summit of the declivity to the river. The buildings are generally handsome, and the streets clean. Few towns in the United States surpass Newburyport in beauty. It was desolated by a fire, in 1811, which destroyed nearly 300 buildings. The place has never recovered from the effects of this calamity ; at the present day, the traveler is struck with the view of a wide heap of grass-grown ruins in the heart of a populous town. The harbor of this place is good, but obstructed at the entrance by a dangerous bar ; to obviate the effects of which, a break-water has been constructed on the south side of the channel. The mercantile enterprise of the town has latterly been diverted from commerce to the fisheries. Ship-building is carried on to a considerable extent, and several manufactories have been established. A handsome chain bridge crosses the river from the centre of the town. The celebrated preacher, George Whitefield, died in this town, in 1760, and is entombed in the Presbyterian church in Federal Street, where a monument has been erected to his memory. Population, 6,800. *Marblehead*, four miles southeast of Salem, with a small, but open harbor close to the sea, is a considerable town, supported almost entirely by fishing, chiefly on the Newfoundland banks. Population, 5,600. *Gloucester*, on the south side of Cape Ann, carries on extensive fisheries, and has a commodious harbor. Population, 8,850. *Ipswich*, at the foot of the Cape on the north side, has several manufactories. Population, 2,860.

Plymouth, in Massachusetts Bay, 36 miles southeast from Boston, is memorable for the landing of the first settlers of New England, on the 22d of December, 1620. The rock on which they landed, is pointed out to the traveler ; a portion of it has been detached from the shore, and placed in the centre of the town. The remains of the fortifications erected to defend the settlers from the Indians are still discernible. The first well dug in New England may also be seen here. Plymouth is a flourishing town, and has some commerce, and manufactures of cordage, cotton, and iron. The harbor is spacious, but shallow, and exposed to easterly storms. A large stone building, called Pilgrim Hall, was erected here by the New England Society, in 1820. The landing of the forefathers is celebrated in Plymouth by annual solemnities. Population, 5,000. *Provincetown*, on Cape Cod, is deserving of notice for its situation at the extremity of the peninsula. It consists of small one-story houses, built upon stakes driven into the sand. The harbor is easy of access, capacious, sheltered, has depth of water sufficient for the largest vessels, but there are no wharves. The position of Cape Cod harbor, as it is commonly called, giving it the command of Massachusetts Bay, renders it of the highest importance in a military, as well as a commercial view, and the government has undertaken the erection of some works here. The inhabitants live chiefly by fishing, and the manufacture of salt. Population, 2,000. *Nantucket*, in the northwest part of the island of that name, is a considerable town, supported almost wholly by the whale-fishery. It has a good, but shallow harbor, and a large number of spermaceti works. The town is built of wood, with narrow and irregular streets. The shipping amounts to 30,000 tons. The whole island constitutes a single county, and a single town. Population, 9,000. *New Bedford*, on Buzzard's Bay, is largely engaged in the whale-fishery, employing in this business 65,000 tons of shipping, besides 20,000 tons occupied in other fisheries, and of coasting craft. Here are several large manufactories of spermaceti candles. More than half a million bushels of salt are yearly made in this place and the neighborhood. Population, 12,000.

In the interior of Massachusetts are several towns worthy of note. *Worcester*, near the centre of the State, is a beautiful and thriving town, and is surrounded by rich and variegated scenery. The Library of the Antiquarian Society, containing 12,000 volumes, is kept here, in a handsome hall. The Blackstone canal, leading from Worcester to Providence, assists the trade of the place, and its manufactures are extensive and various. A State Insane Asylum has been established here. Population, 7,500. *Pittsfield*, near the western limit of the State, is a pleasant town, with manufactures of cotton and woolen, muskets, drums, &c. Here are extensive barracks, a hospital belonging to the United States, and a medical college. Population, 3,600. *Lenox*, near Pittsfield, is a small town of uncommon beauty. It stands upon a high hill, and is environed with beautiful mountain scenery. The houses are very neatly built, and painted white. The town has manufactures of woolen and cast-iron ware. Population, 1,300.

Springfield, on the Connecticut, stands partly on an alluvial spot at the foot of a hill, and consists chiefly of a single street, upwards of 2 miles long, but numerous handsome houses are scattered round the slopes of the adjacent hill. The town is very pleasantly and conveniently situated, and its business and population have rapidly increased of late years. The township comprises the flourishing manufacturing villages of Chickopee and Cabotsville, and contains several large cotton mills, and paper mills, iron founderies, cannon foundery, sword and cutlery factory, &c. Population, 9,500. On the top of the hill, is the United States Armory, comprising an arsenal, barracks, forges, and workshops for the manufacture of muskets. About 260 workmen are here employed, and the number of muskets annually manufactured is 15,000. The whole number made since the commencement of the business, in 1795, is above 450,000. During the insurrection of Shays, this armory was attacked by the rebels, and successfully defended by General Shepard.

Northampton, on the Connecticut, above Springfield, is one of the most beautiful of the New England towns, and is much visited by travelers. Mount Holyoke overlooks the town, and the surrounding country affords the finest scenery. Northampton has several woolen, silk, and other manufactories. The Farmington canal extends from this place to New Haven, in Connecticut. Population, 3,600.

Haverhill, on the Merrimack, at the head of sloop navigation, is a beautiful town, built upon a surface which rises gently from the water's edge. The houses are neat, and the elevated part of the town commands a fine prospect. Here are a bridge and viaduct across the Merrimack. Haverhill has a flourishing trade, and considerable ship-building and manufactures. Population, 4,800.

The city of *Lowell*, one of the principal manufacturing towns in the United States, stands between the Merrimack and Concord Rivers, at their confluence, and derives its great water power from a descent of 32 feet in the former ; the river is dammed back above the falls, and the water is conducted off by a canal a mile and a half long, 60 feet wide, and 8 feet deep ; lateral cuts from the main trunk carry the water to the different mills, and discharge the waste water into the Merrimack and the Concord. In 1820, the site of the city formed a corner of the township of Chelmsford, and contained about 100 inhabitants ; in 1822 the first cotton mill was erected, in 1838 the city had a population of 18,000 souls, and there were in operation 28 cotton mills with 155,000 spindles, and 5,000 looms, 2 woolen mills, a machine-shop, in which are made all the machines used in the factories, locomotive engines, and railroad cars, calico print-works, dye houses, several saw and grist mills, flannel mills, powder mills, glass works, bleacheries, &c. The annual value of the manufactures is 10,000,000 dollars. There are about 6,500 females, and 2,200 males employed in these various works, and there are annually produced upwards of 50,000,000 yards of cotton cloth, of which 12,000,000 yards are printed ; 400,000 yards of cassimeres and broadcloths ; with flannels, Brussels and Kidderminster carpeting, hearth-rugs, &c. Annual consumption of cotton, 16,500,000 pounds ; of wool, 650,000 pounds ; capital invested, 8,500,000 dollars. The Middlesex canal leaves the

Merrimack at this place ; but a more expeditious communication with the capital is afforded by a railroad between Lowell and Boston.

Fall River, formerly Troy, on Taunton river, is another town which owes its sudden rise to manufactures. It stands at the mouth of Fall River, which affords a great and durable water power, and there are here 10 large cotton mills, woolen factories, iron founderies, cotton print-works, &c. Ship-building and the whale-fishery also employ some of the capital and labor of the inhabitants. Population, 6,500. The harbor is safe, deep, and easy of access, and coasting vessels go up to *Taunton*, also a flourishing manufacturing town, with 7,800 inhabitants. Taunton contains 8 cotton mills, several iron founderies and nail factories, cotton print-works, plated-ware factory, &c., and is connected with Boston by a railroad.

6. *Agriculture.* Massachusetts is the most highly cultivated State in the Union, although Connecticut and the eastern part of Pennsylvania approach very near it in this respect. The greatest attention is paid to farming as a science ; and the exertions of the various agricultural societies in collecting and disseminating information, and offering encouragements in the shape of premiums, have had the best effect in promoting skilful and thrifty husbandry among the farmers. The State government has appropriated considerable sums in aid of these efforts. The farms consist generally of 100 to 200 acres, and are almost universally the property of the cultivators. Cattle-shows and exhibitions of various productions of the soil, and specimens of manufactures, with distributions of prizes, take place every year in different parts of the State. Men of talents, wealth, and enterprise have distinguished themselves by their exertions for the improvement of husbandry in every form. The best breeds of foreign cattle have been introduced, and every disposition prevails to favor and promote this essential branch of national industry.

7. *Commerce.* The most important branches of productive industry in Massachusetts, are the fisheries, navigation, commerce, and manufactures. The shipping belonging to this State amounts to 470,388 tons, being greater than that of any other State, and about one fourth of the whole shipping of the country ; about 1,500 vessels, of 295,031 tons, enter annually the different ports of the State ; the yearly value of the imports is about 20,000,000 dollars, of exports 10,000,000 dollars. These statements refer only to the foreign trade, the value of the coastwise exports and imports, which is much larger, not being known. Of the exports, about one half are of domestic produce. The coastwise imports are chiefly raw produce and provisions, and the exports are all kinds of domestic manufactures, and home and foreign produce reëxported.

8. *Manufactures.* Massachusetts is more extensively engaged in manufactures than any other State ; in 1831 there were in the State 250 cotton-mills, with 339,777 spindles and 8,981 looms, consuming 24,871,981 pounds of cotton, and producing 79,231,000 yards of cloth ; at present the number of mills exceeds 300. Some wool is grown in the State, particularly in the hill towns of the western part, but much of the raw material consumed in 125 woolen-mills is brought from other States and foreign countries. Broadcloths, cassimeres, flannels, satinets, blankets, carpets, &c., are among the woolen manufactures ; there are also numerous carding-machines to which the wool used in household manufactures is brought to be carded. The silk manufacture has also been successfully introduced, and sewing silk and silk stuffs are made in small quantities. The iron manufactures, including nails, machinery of all sorts, agricultural, mechanical, and philosophical instruments, hollow ware, cutlery, fire-arms, cannon, &c. are also very extensive ; there are also some brass-founderies and bell-founderies, and tin-ware is furnished for exportation. Leather is made in great quantities, and including its products, boots and shoes, saddles, harness, trunks, &c., forms one of the most important items of manufactures. The making of cordage, hats, furniture, clothes, paper, glass, coaches and wagons, soap and tallow candles, spermaceti candles, and wooden ware, employs large numbers. Salt is made from sea-water, chiefly by solar heat, to the amount of about 500,000 bushels a year · and Epsom and Glauber salts are obtained from the same source. The preparation of India Rubber cloth, impervious to water, and the making of it up into various articles of clothing and family use, although of recent date, are carried on in several large establishments. Dye stuffs, bleaching salts, and numerous other chemical articles used in the various manufactures, are also produced in considerable quantities. Ship-building is extensively carried on. Many of the productions of manufacturing industry, though trifling in appearance, are in the aggregate of considerable value, and some of them are furnished by household labor, and constitute an important source of gain to the rural population during the long and severe winters. Combs

of wood, ivory, horn, and shell; straw and palm-leaf hats and bonnets, the braiding and plaiting of which employ several thousand females; brooms of broom-corn (*holcus sorghum*), about one million of which are made annually; wooden buttons and button moulds; whips, brushes, &c. are a few among the various articles. The annual value of the manufactures is about 80,000,000 dollars; some of the principal items are as under:

Boots and shoes,	$15,000,000	Glass,	1,000,000
Cotton goods,	20,000,000	Brass and copper,	1,500,000
Woolen goods,	10,500,000	Candles, soap,	1,800,000
Leather, morocco,	3,250,000	Books, &c.,	1,000,000
Iron castings, bar, rod, &c.,	1,700,000	Machinery,	1,250,000
Nails,	2,000,000	Spirits,	1,240,000
Paper,	1,500,000	Refined sugar,	1,000,000
Clothing,	2,000,000	Furniture,	2,000,000
Fur, straw, and palm-leaf hats, caps, &c.,	3,000,000	Oil, refined,	2,000,000
		Ships,	1,000,000

9. *Fisheries.* This branch of enterprise was once of greater importance than all the other maritime interests of the State. The venerable wooden codfish, which still swims in the air, and looks down upon the congregated wisdom of the Commonwealth from the ceiling of the Representatives' Hall, serves to remind us what a national interest was felt in former days in the "fat things of the sea and sand." The fisheries are still important in Massachusetts, and every seaport in the State is engaged in them. They have always been a prominent branch of New England industry, whether we consider the number of persons engaged in them, or the value of the returns they afford. The herring or alewife and mackerel fisheries are carried on along shore; the cod-fishery chiefly on the Great Banks, and on the Newfoundland and Labrador coasts; the whale and seal fisheries in the South Atlantic, Pacific, Indian, and Antarctic oceans. About 300 vessels, of 75,000 tons, with 8,000 men are employed in the whale-fishery, and there are annually brought into the ports of Massachusetts, 4,500,000 gallons of sperm oil, and 2,000,000 gallons of right-whale oil, with upwards of 1,200,000 pounds of whalebone, worth in all nearly 5,000,000 dollars. New Bedford and Fairhaven, Nantucket, Salem, Edgartown, Barnstable, Newburyport, and Plymouth are most largely engaged. In some years 250,000 barrels of mackerel have been brought in. Boston, Gloucester, Newburyport, Hingham, Plymouth, Barnstable, &c. are most extensively concerned in this fishery, in which 36,000 tons of small craft are engaged. The cod-fishery employs 45,000 tons of shipping, chiefly from Marblehead, Gloucester, Boston, Plymouth, Barnstable, &c.; the annual catch is about 400,000 quintals of fish, yielding also 6,000 barrels of oil, of the aggregate value of about 1,200,000 dollars.

10. *Population at different periods.*

1790,	378,717	1830,	610,408
1800,	423,245	1836,	701,330
1810,	472,040	1840,	
1820,	523,286		

11. *Indians.* Scattered remnants of the aborigines linger in various parts of the State, but chiefly in the southeastern quarter, about Buzzard's Bay, and on the island of Martha's Vineyard. Their united numbers are about 750. They are all under the guardianship of the State government, and are not allowed to alienate their lands but by the consent of the overseers appointed by the State to look after their interests. The Society for the Propagation of the Gospel among the Indians, furnishes them with ministers and teachers. At Marshpee and on Martha's Vineyard are settlements containing 660 souls, who own 13,000 acres of land in common. They are all, except 50 or 60, of mixed blood, mostly by intermarriage with blacks. Some of them have gardens and cultivated fields, but their chief sources of income are the wood on their lands, the pipe-clay of the island, and pasturing the cattle of the whites. Many of the young men are employed in the whale and other fisheries, and are skilful and industrious. They have forgotten their ancient names, and nearly all the Indian language. Most of the children read and write.

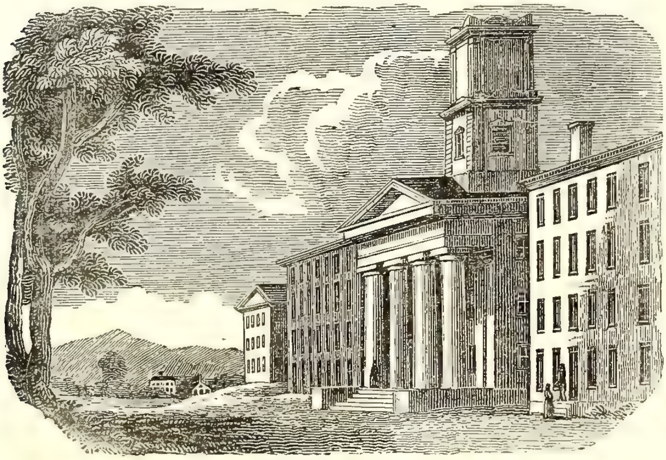
12. *Government.* The legislative body consists of a Senate and House of Representatives, together styled the General Court of Massachusetts. The representatives are chosen in towns,

in proportion to the population. The senators are chosen in counties; the numbers being proportioned to the taxes paid by each county. The executive are a Governor and Lieutenant-Governor, chosen by the people, and a council of 9, chosen by the legislature. All resident citizens of a year's standing, who pay taxes, are voters. The legislature meet once a year at Boston. Massachusetts sends 12 representatives to Congress.

13. *Religion.* The congregational form is that which generally prevails; but within its limits are a diversity of doctrines, as Calvinism, Unitarianism, Anabaptism, Universalism, &c The Calvinists are numerous, but the Unitarians have made some progress in this State, and in Boston they exceed in numbers any other denomination. The orthodox Congregationalists have in this State 325 churches, with 47,000 communicants; the Unitarians 125; the Baptists 130, with 20,500 communicants; the Universalists 100. The Methodists have 90 ministers, and the Episcopalians 40. There are a few Shakers, some Swedenborgians, Roman Catholics, &c.

Harvard University.

13. *Education.* *Harvard University* stands at the head of the literary institutions of the western hemisphere, and is the oldest and wealthiest university in the United States. It was founded in 1636, and has received liberal endowments from the State of Massachusetts and from philanthropic individuals. The buildings are situated upon Cambridge common, and consist of 8 edifices of brick, and 2 of stone. There is also a botanical garden, with a green-house and a collection of trees and plants, native and foreign. The college library contains above 45,000 volumes. The philosophical apparatus and the cabinet of minerals are valuable and extensive. There is also a chemical laboratory, anatomical museum, &c. The officers are a president and 30 teachers. The government belongs to a corporation, consisting of 6 fellows, and a board of overseers, comprising the Governor of the State, the Lieutenant-Governor, the members of the Council and Senate, the Speaker of the House of Representatives, and 30 others, elected for that purpose. A theological school, in which tuition is afforded free of expense, a law school, and a medical college are attached to the University. The latter is in Boston, and has a medical library of 4,000 volumes; here the lectures are delivered in autumn and winter. *Williams College*, at Williamstown, was incorporated in 1793. It has a president and 7 instructors. The college edifices are 2 four-story brick buildings and a laboratory. The libraries have 4,550 volumes, and there is a philosophical and chemical apparatus. The medical school is at Pittsfield. The *Amherst Collegiate Institution* was established in 1821, and is supported by the interest of a fund of 50,000 dollars, contributed by individuals. The officers are a president and 12 teachers. There are 5 overseers appointed by the subscribers to the fund. The terms of admission and course of study are similar to those of Yale College. The library



Amherst College.

contains about 5,000 volumes. The students are 260. *Phillips Academy*, at Andover, is one of the oldest and best endowed seminaries of its kind in the country. It was founded in 1778. The *Theological Seminary*, at Andover, was founded in 1807, and is liberally endowed; it has five professors, and a library of 13,000 volumes. There are a Baptist *Theological Institution* at Newton, and 56 incorporated academies in the State. The number of free schools is about 3,000, attended by 140,000 pupils. The annual expenditure for the support of these schools is 500,000 dollars. Two Normal schools, one for male teachers, at Barre, and one for females, at Lexington, afford gratuitous instruction.

14. *Antiquities.* At Berkley, on the west side of Taunton River, which runs into Narragansett Bay, are some curious inscriptions on a rock at the water's edge, called the Dighton rock, because it was formerly within the limits of that town. They consist of rude figures of men and animals intermixed with different unintelligible marks. Both their date and signification are utterly unknown. Some endeavors have been made to assign them a Transatlantic origin, but there appears no good reason for such conjectures. Some Mohawk Indians, who had seen the inscription, declared, that they were made to represent a great slaughter made among the people of the country by a wild beast.

15. *History.* When Sebastian Cabot discovered North America, in 1497, he sailed along the coast of Massachusetts, in his passage from Newfoundland to Florida. Verazzano, in 1524, made a similar visit to the coast; but the first proper discoveries in this State took place in 1602, when Bartholomew Gosnold explored Cape Cod and Buzzard's Bay. At the latter place, he built a fort, and traded with the Indians; he made, however, no permanent settlement. In 1614, Captain John Smith explored the whole coast of Maine and Massachusetts, as far as the southern extremity of the bay. The splendid accounts of the country which he transmitted to England, induced Prince Charles, afterwards King Charles the First, to give it the name of New England. Smith was not successful in his attempts to establish a colony. The Puritans, who were persecuted in England, resolved to emigrate to America for liberty of conscience, and, obtaining a grant of the land, they set sail on this memorable voyage, in September, 1620. They landed, built a settlement, and established a republican government at Plymouth, in December of the same year. Their hardships here were numerous, and their dangers formidable, yet their numbers were soon augmented by the arrival of other emigrants. Salem was founded in 1627, and Boston in 1630.

The colony of Massachusetts Bay and that of Plymouth, or the Old Colony, as it was called, were under distinct governments till 1692, when, by a royal charter, they were united. From this period, the governors of the colony were appointed by the king, and the power of annulling the colonial laws was assumed as a royal prerogative. This regulation continued until the Revolution, and the monarchical principle thus infused into the Massachusetts democracy, occasioned an almost perpetual struggle between the republican spirit of the people and the royal authority. Massachusetts stood ever foremost in opposition to the oppressive domination of the mother country, and the American Revolution began at Boston. The last remnant of British authority expired in Massachusetts on the 17th of March, 1776, when the British were driven from Boston by Washington, 156 years from the landing of the pilgrims at Plymouth. The colonial form of government continued till 1780, when a convention of delegates established the present constitution. This instrument underwent a revision in 1820, but the alterations were not material. In the interval between the close of the revolutionary war and the establishment of the federal government, there occurred an insurrection in the western counties of Massachusetts, which deserves particular notice here.

The public debt of the State at the close of the war, and the languishing condition of trade and industry, had brought a heavy burden of taxation upon the people. Several minor causes of discontent contributed to promote a disaffection toward the government, which at length, in the summer of 1786, assumed a serious character, in the counties of Hampshire and Berkshire, where the inhabitants conceived the taxation to have been apportioned unequally. Various inflammatory publications were issued, and, on the 22d of August, a convention of delegates from 50 towns in Hampshire, met at Hatfield, and drew up a specification of their grievances, in which they denounced the system of representation, the court of common pleas, the system of taxation, the management of the public finances, &c. Encouraged by this declaration, the people of the neighborhood took up arms, and assembled to the number of 1,500 at Northampton, where they took possession of the court-house, and prevented the court from sitting. Upon the news of this violence, Governor Bowdoin issued a proclamation, calling upon the citizens to aid in suppressing the insurrection. This had no influence with the disaffected, and the rebellion soon spread into the counties of Worcester, Middlesex, Bristol, and Berkshire. In Worcester, the judges were driven from the court-house at the point of the bayonet. In Middlesex, a convention gave encouragement to the rebels ; another in Berkshire produced a similar effect. The courts were prevented from sitting, and the jails were broken open. The government called out the militia, and a body of 600 men, under General Shepard, garrisoned the court-house at Springfield. On the day appointed for the session, a body of 2,000 insurgents collected under the command of Daniel Shays, a leader whose name has always been coupled with the memory of this rebellion.

Shays had been a captain in the revolutionary army, and though a man of personal bravery, was an officer without conduct or capacity. He appears to have had little idea of giving any systematic movement to the rebellion, but acted merely as chance or local circumstances led him onward. His direct influence over the people was very slight, and he showed no genius for conducting a great enterprise. With his army at Springfield, he made a semblance of attacking the militia, whom he found in possession of the court-house, but at length filed off through the streets of the town without firing a shot, and in a few days his men dispersed. In November, the session of the court at Worcester was again interrupted by the insurgents. The sheriff of Middlesex, assisted by the militia, succeeded in arresting several of the leaders, and a body of cavalry at the same time entered the county of Worcester, where Shays had appeared again, at the head of 1,000 men.

The alarm had now pervaded the whole State, and fears were entertained of their marching upon Boston. The avenues to the capital were therefore guarded, and the people were in a high state of excitement. Shays, however, after remaining in Worcester till December, retreated to Rutland. His troops were half starved, and many perished from the cold. Late in December, he appeared again at Springfield, but by this time the militia of the maritime counties had assembled, with a determination on the part of the government to strike at once a decisive blow at the insurrection. The army consisted of 4,000 men, under the command of General Lincoln, and marched immediately into Worcester. Another body of militia in Hampshire had been placed under the command of General Shepard, who took post at the arsenal at Springfield, with about 1,000 men. The rebels amounted, at Springfield, to 2,000 men, commanded by Shays and two other leaders.

On the 25th of January, Shays advanced to attack the arsenal. A striking proof of his ignorance as a tactician, appears in the fact, that he led his men to the assault in a solid column. Shepard, who might have cut the whole body to pieces with his artillery, was desirous, at first, to avoid bloodshed, and therefore fired a few shots over their heads ; but this only quickened their approach. He then poured in upon them a destructive fire, which threw them at once into disorder. Shays attempted to display his column, but without effect, and the men fled precipitately. The other bodies of the rebels maintained their position ; but the main army, under General Lincoln, coming up, they retreated. A corps of volunteers pushed forward, and captured at Middlefield a detachment of 60 rebels, with a quantity of stores. The remainder took a strong position upon the heights of Pelham, surrounded by deep snows.

Here Lincoln sent a flag to Shays, summoning him to surrender. The insurgent leader appears by this time to have been aware of his desperate situation, and offered to submit on condition of a free pardon ; but as Lincoln had no power to grant this, the summons was no further heeded. A petition to the general court was at the same time despatched to Boston, from Shays and other of the rebel officers, proposing to lay down their arms, on condition of a general amnesty ; but the language of the petitioners not being deemed sufficiently submissive, the application was rejected. The insurgent army was now 2,000 strong, and appeared so important at Pelham, that another levy of 2,600 militia was made by the governor. But the affairs of the rebels were now rapidly declining. Early in February, one of their leaders came over to the government with a considerable body of men, and shortly after, the whole army abandoned their position at Pelham, and retreated to Petersham. Lincoln pursued them through a violent snow-storm, and against an intensely cold north wind. At Petersham, his advanced guard surprised the whole rebel corps, drove them out of the town, and completely dispersed them in the pursuit. Meantime a body of insurgents in Berkshire, who had assembled at West Stockbridge, were attacked and routed, and their leaders, with many others, were made prisoners. They afterwards rallied at Williamstown, but were again put to flight. Skirmishes took place with other small parties in different quarters. On the 26th of February, a body of insurgents, who had fled into the State of New York, appeared again in force in Berkshire, and plundered the town of Stockbridge. They were attacked by a corps of militia at Sheffield, and a smart action ensued, in which the rebels were repulsed. Shays, meanwhile, had retreated from post to post, as fast as he was pursued, until driven out of the State. The rebels never made any effectual head, after their route at Petersham. One after another they laid down their arms. Tranquillity was soon restored, and at the end of the season the militia were disbanded. It is honorable to the character of the Massachusetts government, that not an individual fell upon the scaffold, in consequence of this rebellion. Shays himself received a pardon the following year

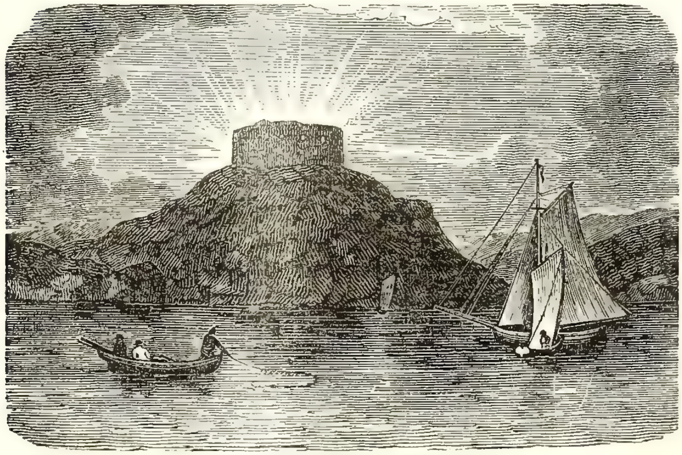
CHAPTER IX. RHODE ISLAND.

PHYSICAL GEOGRAPHY.

1. ***Boundaries and Extent.*** Rhode Island is situated between 41° 15′ and 42° N. lat., and between 71° 8′ and 71° 52′ W. lon. It is bounded on the N. and E. by Massachusetts ; on the S. by the Atlantic ; and on the W. by Connecticut. The average length of the State, from north to south, is about 42 miles ; its mean breadth is about 29 miles, comprising an area of 1,225 square miles, including the waters of Narragansett Bay, which contain about 130 square miles. Rhode Island is the smallest State in the Union.

2. ***Rivers.*** There are no rivers of importance ; the largest is the ***Pawtucket***, which, at its entrance into Narragansett Bay, forms part of the harbor of Providence ; it is but a mill-stream, and is occupied by numerous manufactories. The ***Pawtuxet***, which flows into the Narragansett 5 miles below Providence, has also a large number of manufactories upon its waters. The ***Pawcatuck***, in the southwestern extremity of the State, is navigable for 5 or 6 miles from its mouth.

3. ***Islands.*** ***Rhode Island***, in Narragansett Bay, is 15 miles long from northeast to southwest, and has a mean breadth of 2½ miles, containing about 37 square miles ; it is a very beautiful island ; the air is pure and salubrious, and the climate milder than on the continent, rendering it a very desirable residence for invalids in summer. The surface of the island is agreeably diversified, but it is destitute of trees, the whole island having been laid waste by the British in the revolutionary war. It affords excellent pasturage, and maintains a large number of sheep. The town of Newport is in the south part.


Ancient Fortification, Conanicut.

Conanicut is an island lying on the west side of Rhode Island ; it is 8 miles long, and about one in breadth. This is also a beautiful island, and has a fertile soil ; it contains the town of Jamestown. At the southern extremity is a lighthouse. In the same part may be seen the ruins of an ancient circular fortification, which once defended the passage up the bay.

Prudence Island, further up Narragansett Bay, is 6 miles in length. ***Block Island*** lies 10 miles out at sea, and is 8 miles long, and from 2 to 4 broad ; it has an uneven surface, but produces maize and other grain. A lighthouse stands upon it.

4. ***Bays and Harbors.*** ***Narragansett Bay*** extends more than 30 miles into the State, and affords great advantages for ship navigation ; it has many excellent harbors, and contains 15 islands. It is about 10 miles wide at the lower part ; but a large portion of this space is occupied by the islands already described. Ships ascend this bay to Providence, 36 miles above Point Judith. Newport Harbor, in the channel between Conanicut and Rhode Island, is one of the finest harbors in the world, being safe, deep, capacious,

and easily accessible. The entrance is defended by Fort Walcott, on Goat's Island, and Fort Adams, on Rhode Island; the latter is a large stone castle, of great strength.

5. *Climate.* This whole State enjoys a salubrious climate; the winter in the maritime parts is sensibly milder, and the seasons there are more uniform than in the rest of New England; the heat of summer is much alleviated by refreshing seabreezes. In other respects, the climate of Rhode Island resembles that of Connecticut and Massachusetts.

6. *Soil.* The soil is pretty uniform; on the continent, it is generally a gravelly loam, which is tolerably fertile, but difficult of cultivation. Upon the islands, the soil is slaty and productive. There are few pine plains in the State, and but very little alluvial land.

7. *Geology.* The continental part is primitive, but the islands in Narragansett Bay display a transition character. Granite abounds on the continent, and limestone occurs in the northeastern part. Slate and coal formations are exhibited in the islands, and on the mainland.

8. *Natural Productions.* There are no extensive forests; the trees are generally of the deciduous kind; oak, chestnut, and walnut are the most abundant; pine and cedar are more rare.

9. *Minerals.* Anthracite coal is found in Rhode Island in extensive beds; these were wrought to a considerable degree some years since, but the discovery of the more valuable mines of Pennsylvania, has now rendered the Rhode Island coal of little estimation. Iron ore occurs in the northern parts, and there is a mine wrought at Cranston. There are quarries of limestone at Smithfield, and the same place affords excellent marble. Beds of serpentine are found at Newport. The mineral treasures of this State, as far as yet discovered, are not on the whole either extensive or valuable.

10. *Face of the Country.* There are no mountains in the State, nor any hilly tracts, yet the general face of the country is somewhat rough and rocky. There are some level districts upon the borders of Narragansett Bay, and some flats on the Atlantic shores. The aspect of the country, on the whole, is picturesque; the highest eminences are, Mount Hope, in Bristol; Hopkins's Hill, in West Greenwich; and Woonsocket Hill, in Smithfield; but they are not remarkable for elevation.

POLITICAL GEOGRAPHY.

1. *Divisions and Population.* Rhode Island contains 5 counties.

Counties.	*County Towns.*	*Counties.*	*County Towns.*
Providence,	Providence.	Newport,	Newport.
Kent,	East Greenwich.	Bristol,	Bristol.
Washington,	South Kingston.		

The towns are 31.

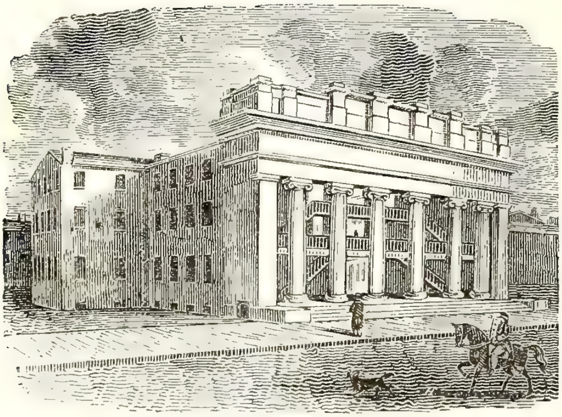
Population at different Periods.

1790,	69,110	1820,		83,059
1800,	69,122	1830,	(Slaves, 17)	97,199
1810,	77,031	1840,		

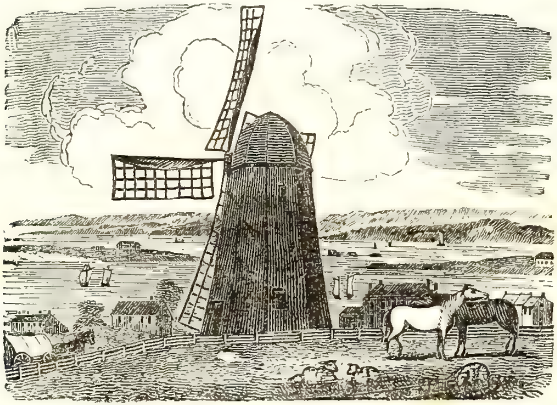
2. *Canals and Railroads.* A portion of Blackstone canal lies in Rhode Island. This has been already described. The Boston and Providence railroad terminates in this State, but lies principally in Massachusetts. The Providence and Stonington railroad, 47 miles in length, is a continuation of this route to Long Island Sound, and enables travelers to escape the exposure to the swell of the sea off Point Judith.

3. *Cities and Towns.* *Providence*, the second city in New England for population, wealth, and business, stands at the head of Narragansett Bay, which, at this extremity, becomes narrowed to the width of a river. It is built on both sides of the river, the two parts being connected by a bridge. The new town, on the west side of the river, has all the bustle and liveliness, and displays the flourishing appearance, of a commercial city. The hill on the opposite side, or East Providence, is chiefly occupied by private mansions, beautifully situated, and adorned with gardens and court-yards. On the summit of a steep eminence stands the college, overlooking the city. The streets are irregular, but there are many beautiful situations and fine edifices in the town.

The Arcade, extending from Westminster Street to Weybosset Street, is the handsomest building of its kind in the country. It is 226 feet long, and three stories high, with 28 rooms on each floor. The front on each street consists of an Ionic portico, with granite pillars.



The Arcade.



View near Newport.

The Athenæum is a handsome granite building, and contains a public library of 5,000 volumes. Providence has numerous churches, a theatre, many cotton and woolen manufactories, founderies, tanneries, glass-works, paper-mills, dye-houses, &c. Its distance from the sea is 35 miles, but merchant ships of the largest size can come up to the wharves. Steamboats pass between Providence and New York, through Long Island Sound, during all the open season, and nearly the whole of the summer traveling from Boston to the south passes by this route. Providence was founded by Roger Williams in 1636. It retained the denomination and government of a town until 1831, when a city charter was adopted. Population 20,000.

Newport, at the mouth of Narragansett Bay, 5 miles from the sea, has a fine harbor and beautiful situation. It was formerly a place of much trade and consequence, and its fisheries are still important, but its commerce has been diverted to the neighboring cities of New York and Providence, and it has been until very lately on the decline. It contains a State house, a jail, an academy, a public library, 11 churches, and has manufactures of cordage, cotton, and lace. This town is much resorted to during summer, on account of the purity of its air ; its market is celebrated for the excellence of its fish. Population 8,000.

Bristol, 15 miles north of Newport, on Narragansett Bay, is handsomely situated, and has a good harbor. The trade hence to the West Indies and Europe is considerable, and the whale-fishery is prosecuted from this port. Population 3,000. *Mount Hope*, celebrated in the early history of New England as the residence of King Philip, is within the limits of Bristol ; it is a conical-shaped hill, with a pointed summit, and exhibits a charming prospect.

Pawtucket, four miles northeast from Providence, has many large and flourishing manufactories of cotton, nails, screws, oil, ships, machinery, cabinet-ware, &c. The village is built upon the falls of the Pawtucket, on both sides of the river, and belongs half to this State, and half to Massachusetts. The Rhode Island portion is in the township of *North Providence*. The banks of the river here are high and steep. The turnpike from this town to Providence is one of the finest roads in the country. The whole population of the village is 8,000.

Warwick, 10 miles south of Providence is a flourishing manufacturing town, with some commerce. Population 5,600. *Pawtuxet* village is in this town.

4. *Agriculture.* The attention of husbandmen in Rhode Island, is chiefly directed to the dairy and grazing. The islands and shores of Narragansett Bay are celebrated for their fine cattle, their numerous flocks of sheep, and the excellence and abundance of their butter and cheese. Of the different kinds of grain, maize, barley, oats, and rye, are the most generally cultivated.

5. *Commerce.* The exports of this State do not differ materially from those of the neighboring parts of New England. The trade is chiefly confined to the ports of Newport and Providence. The foreign imports, in 1838, amounted to 656,613 dollars. The exports of domestic produce to 270,065 dollars, and the shipping to 44,660 tons.

6. *Manufactures.* Rhode Island, in addition to her own manufactures, furnishes the market to many of those in the adjoining parts of Massachusetts and Connecticut. Pawtucket has the

largest manufactories in the State. The manufactures of this place are chiefly of cotton. The mills are seated upon three falls in Pawtucket river, and run 50,000 spindles.

Providence has also large manufactures of cotton, woolen, cordage, spermaceti, &c. Warwick has several cotton manufactories, and at Newport is a manufacture of lace. At Slatersville and Woonsocket, in the town of Smithfield, are extensive manufactories of cotton, iron founderies, &c. Rhode Island is almost exclusively a manufacturing State.

There are in the State 150 cotton mills, with 250,000 spindles, 25 woolen mills, 40 tanneries, 10 iron founderies, 30 machine-shops, &c.

7. *Indians.* At Charlestown, in the southern part of the State, are about 430 Narragansetts. Nearly all of them are of mixed blood. They possess 3,000 acres of land, and have a missionary and two schools. They profess the principles of the Baptists, and have a religious society among them. The State exercises a guardianship over them, although in point of internal government, they are nominally independent, and appoint a Council of 5 members and a clerk, from among themselves.

8. *Government.* Rhode Island is the only State in the Union that is without a written constitution, the government being to this day founded on the provisions of the charter granted to the colony by Charles the Second, in 1663. The obligations of this charter, as a constitution of civil government, became annulled by the declaration of independence, but, by the common consent of the people, the form of government was preserved, without any essential variation. The legislature is called the *General Assembly*, and consists of a Senate and House of Representatives ; the senators are 10. The representatives are two from each town, but Providence, Portsmouth, and Warwick send each four, and Newport sends six. The representatives are chosen twice a year. The executive consists of a Governor, whose powers are very limited, and a Lieutenant-Governor, both of whom have seats in the Senate ; these, as well as the State Treasurer, Secretary, and Attorney-General are chosen annually. Suffrage is restricted. The legislature have two stated sessions annually, and meet commonly four times a year, at Providence, Newport, East Greenwich, and South Kingston. Judges and other civil officers are appointed yearly. Rhode Island sends two representatives to Congress.

9. *Religion.* The Baptists have 12 ministers. The Congregationalists 10. The Methodists 10 ; and the Episcopalians 8. There are also a few Sabbatarians and Six-principle Baptists.

10. *Education.* *Brown University* was founded in 1764. It was first established at Warren in this State, but was removed in 1770 to Providence, where it has remained. It has been supported solely by individual patronage, and its funds are not large. The college edifices are several brick buildings, containing rooms for students, and for public purposes. The college is delightfully situated on an eminence in the east part of the town, and commands a beautiful prospect. The library contains 6,000 volumes. The officers are a president and 10 professors. The board of trustees is composed of 36 members, of whom 22 must be Baptists, 5 Quakers, 5 Episcopalians, and 4 Congregationalists. The Fellows, or Learned Faculty, are 12, of whom 8, including the president, must be Baptists. The number of students 200. The State pays annually 10,000 dollars for the support of common schools, besides the taxes raised for this purpose in each town. There are academies in all the principal towns, and private schools, during the winter, are general throughout the State.

11. *History.* The first settlement within the limits of the State was made by Roger Williams, who was banished from Massachusetts for maintaining the principles of religious toleration. He repaired to Seekonk, and purchased a district of land from the Indians, but, finding himself still within the limits of Massachusetts, he proceeded further to Mooshansic, and with his followers established, in 1636, a settlement, which he called *Providence.* Their numbers were soon increased by seceders and exiles from Massachusetts, and the island of *Aquetnet*, or Rhode Island, was settled in 1638. A patent for the territory, and permission to erect an independent government, was obtained from the Plymouth Company in England, in 1644 ; the first General Assembly met at Portsmouth, organized a government, and established a code of laws, in 1647. A charter was granted by Charles the Second, in 1663, to the colony, under the name of Rhode Island and Providence Plantations. During the tyranny of Andros, he annulled the charter, and ruled the colony with the assistance of a council, appointed by himself ; but his overthrow restored the government to its original state. Religious toleration, with some slight exceptions, has been allowed in Rhode Island from its first settlement It was the last of the 13 States which acceded to the Union ; this took place in 1790

CHAPTER X CONNECTICUT.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* Connecticut is situated between 41° and 42° north lat. and between 71° 50′ and 73° 43′ west lon. Its average length from east to west is about 88 miles; its mean breadth from north to south 53 miles, comprising an area of 4,664 square miles. It is bounded north by Massachusetts; east by Rhode Island; south by Long Island Sound, and west by New York.

2. *Mountains.* There are five distinct ranges. 1. The *Housatonic* mountains enter the State in the northwest part, and continue southerly along the Housatonic river to the coast; this is not properly a continuous ridge, but a succession of eminences, spurs, and branches, some of which are considerably elevated. Mount Tom, between Litchfield and Washington, is 700 feet high. 2. The next, proceeding easterly, is the *Greenwoods* Range, which is not very elevated; the summits in the northern parts are covered with evergreens; the southern division is more rugged and less lofty than the northern. 3. The third is a Greenstone Range, and is broken and precipitous on its western face, with gentle declivities on the eastern; this range divides into branches toward the south, which end in East Rock and West Rock, near New Haven; it abounds in minerals. 4. The fourth range extends from Hartford to New Haven, and is of the same geological character with the preceding, but is not continuous. It is of only a moderate height, but has a few bold elevations, exhibiting the more prominent features of the Greenstone Range. This range is called the *Middletown* Mountains, though its separate parts have several distinct appellations. 5. Passing east of the Connecticut River, we come to the fifth, called the Lyme Range, being the height of land which separates the waters of the Connecticut from those of the Thames; this range has also two branches toward the south, but in the north is a distinct and continuous ridge, highest in the northern part. Bald Mountain, between Somers and Stafford, is the loftiest summit of this range.

3. *Valleys.* The Valley of the Connecticut begins at Middletown, and passes north through the State, being from 10 to 16 miles in width, and extending within the limits of this State a length of 30 miles; this is the richest agricultural section in the State. The Farmington Valley, extending from New Haven north through the State, is 50 miles in length, and from 3 to 5 wide. The Valley of the Quinipiack, in Wallingford, and North Haven, is 15 miles in length, and from 2 to 5 in breadth, and is generally fertile. On the borders of the Housatonic are vales of considerable extent, from 1 to 5 miles in breadth, and of a rich soil.

4. *Rivers.* The *Connecticut* enters this State from Massachusetts, and flows south into Long Island Sound. Its mouth is barred with sand, but it admits of a sloop navigation to Hartford, 50 miles. Its general course after entering the State, is S., but at Middletown it bends to the S. E. and continues in that direction to its mouth. It receives no tributary in Connecticut of importance. The largest is the *Tunxis*, or Farmington River, which rises in Massachusetts, and joins the Connecticut on the western side, 5 miles above Hartford. The *Housatonic* rises in the western part of Massachusetts, and enters this State near the northwest corner, after which it runs in a southerly and southeasterly course, to the Sound, between Milford and Stratford. The first part of its course is broken by cataracts, and its entrance is barred against large vessels. It has a sloop navigation of 12 miles. The *Thames* is formed of two branches, one consisting of the Shetucket, and the other of the Yantic and Quinebaug; the last rises in Massachusetts. These streams unite at Norwich, and flow 14 miles to New London, where they enter the Sound. It has a good ship navigation below the union of the head streams.

5. *Marine Waters.* The whole coast of the State lies upon *Long Island Sound*, which is, in fact, an extensive Gulf or Channel, being 140 miles in length, and 25 miles broad in the widest part. It is somewhat narrow at the eastern entrance, and expands in the middle. Toward the west it contracts gradually till it joins the harbor of New York by a narrow and crooked strait. It admits of a free navigation throughout its whole extent, for the largest ships, but in the western strait is a dangerous whirlpool at a spot called Hell Gate, where the current is contracted by the rocky shores, and, at certain seasons of the tide, the navigation is hazardous.

6 *Climate.* Both the face of the country, and the local position of this State, correspond

so nearly to the adjoining States of Massachusetts, and Rhode Island, that the difference in the climate can be hardly sensible. The winters are perhaps a little more temperate, and the summer a few days earlier than in the western part of Massachusetts.

7. *Soil.* The soil is generally good, but of various kinds; the valley of the Connecticut has generally a strong and fertile argillaceous loam, varying in different sections from a hard, stiff clay, to a light, sandy loam, according to the prevalence of aluminous, or siliceous earth. The Quinipiack valley is generally fertile, but light and sandy in the southern part. In the eastern portion of the State the prevailing soil is warm, strong, fertile, and excellent for grazing. The northwestern part is in some places cold and sterile, but is generally a good grazing country. In the western part of the State are many fertile districts.

8. *Geology.* The first two ranges of mountains beginning at the west are granitic, the next is a greenstone range, corresponding with the trap or greenstone of the old continent. The next is also a greenstone range, and the fifth, and most easterly, is granitic. At New Haven, a region of trap or greenstone commences, which completely intersects this State and Massachusetts, like a belt, passing into Vermont and New Hampshire. The Connecticut flows through the whole extent of this district, except below Middletown, where it passes through a barrier of primitive country, to the sea. The trap region passes off southwesterly from the river, and joins the primitive near New Haven. It is more than 100 miles in length, and varies in breadth from 3 to 25 miles. Its basis is composed of stratified rocks inclined to the east at a small angle with the horizon. Sandstone is the most conspicuous of these rocks, and it has every variety, from very fine grained, to coarse; sometimes it becomes a breccia or pudding stone, and again is a mere conglomerate. Under the sandstone are generally found slaty rocks, often with impressions of vegetables and fish, and containing small veins of jet and coal. Ridges of greenstone trap, traverse this region lengthwise, from the sea to the northern part of Massachusetts. These repose almost universally upon sandstone, and consist of a dark green rock, whose constituent parts are hornblende and felspar. At Rocky Hill near Hartford, in a quarry of building stone, the junction of sandstone and trap is conspicuously exhibited. Most of the ridges are parallel, and their western parts generally precipitous, so that in many places the country seems divided by stupendous walls. Immense masses of ruins are collected at their feet; these consist sometimes of entire cliffs and pillars of many tons' weight, which are thrown off by the freezing of water in the gullies, and often fall with a mighty concussion into the valleys. On the opposite side there is generally a gradual slope, covered with trees.

Bed of Sand-Stone, near Hartford.

In Meriden, between Hartford and New Haven, is a *Natural Ice House*, in a narrow defile, between ridges of greenstone. The defile is choked up with the ruins of the rocks which have fallen from the ridges, and form a series of cavities overgrown with trees, and strewn with thick beds of leaves. The ice is formed in the cavities of these rocks, and remains the whole year. A portion of it melts during summer, causing a stream of cold water perpetually to flow from the spot. The space between the mountains is called Cat Hollow, and presents the most wild and picturesque scenery in the State.

9. *Minerals.* Iron ore is found in various places; hematite ore occurs in the northwest, and supplies several furnaces there; the bog ore is found and wrought in the eastern part. Copper is abundant in the greenstone mountains, and at Bristol there appears to be a copper field of wide extent; lead occurs on the Connecticut, two miles from Middletown; plumbago is found in New Milford and Marlborough; and cobalt in Chatham. Porcelain clay is found at New Milford and Cornwall, and limestone abounds in the western parts. Marble is obtained at New Milford, Washington, Brookfield, and Milford, and quarries of freestone are numerous,

especially upon the Connecticut. There are chalybeate springs at Stafford, which are the most celebrated in New England. The mica-slate quarries furnish admirable flagging stones.

10. *Face of the Country.* The surface of this State is diversified; there are few level tracts, and no very high mountains; hills of moderate size are scattered everywhere. The variety of aspect is striking; at the base of a rugged granitic ridge, a smooth, fertile plan is often spread out; the craggy cliffs sometimes approach the edge of a stream, which is perhaps bordered on one side by a beautiful alluvial tract, and this alluvion is again bounded by a ridge of mountains in the distance.

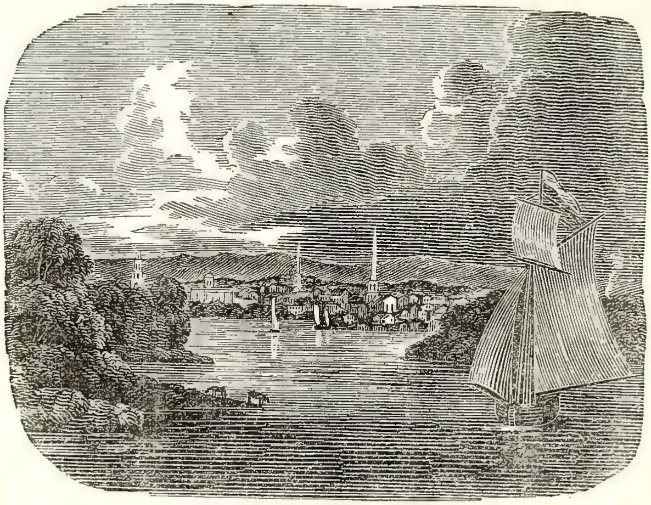
POLITICAL GEOGRAPHY.

1. *Divisions.* Connecticut is divided into eight counties. The number of towns and cities is 120.

Counties.	*County Towns.*	*Counties.*	*County Towns.*
Windham,	Brooklyn.	Middlesex,	Middletown. Haddam.
New London,	New London. Norwich.	Litchfield,	Litchfield.
Tolland,	Tolland.	Fairfield,	Fairfield. Danbury.
Hartford,	Hartford.		
New Haven,	New Haven.		

2. *Canals and Railroads.* The *Farmington Canal* crosses the State from New Haven to Westfield in Massachusetts, and extends to Northampton on the Connecticut, making its whole length 80 miles. It joins the sea by a large basin, at New Haven, and the first part of it passes through a level country, but toward the north the surface grows uneven, and considerable lockage is required. Extensive improvements have been made at Enfield Falls, on the Connecticut, by a company whose object is to remove the obstacles, and render the river navigable for boats and steamboats as far as White River in Vermont. The Stonington railroad terminates at Stonington Harbor within this State. The Norwich and Worcester railroad, extends to Worcester in Massachusetts, 60 miles, thus forming a second line of railroad between the Sound and Boston. The New Haven and Hartford railroad between those two cities is 40 miles long, and it is proposed to continue it to Springfield in Massachusetts.

3. *Cities and Towns.* The seat of government is divided between the cities of Hartford and New Haven. The city of *Hartford* is seated upon the Connecticut, a little north of the centre of the State, at the head of sloop navigation, and is surrounded by a fertile and beautiful country. The town is substantially built, and enjoys a flourishing trade with Boston, New York, the West Indies, and other places. Great quantities of lumber and other productions are received here from New Hampshire, Vermont, and Massachusetts, by way of the river. Its manufactures are various, and their annual value is $ 1,000,000. The city contains a State-house, city hall, a college, a deaf and dumb asylum, a retreat for the insane, a museum, an arsenal, numerous churches, and several banks. Among the public edifices, the Episcopal church deserves notice for its architectural beauty. This is a plain Gothic building, and is the more worthy of commendation as few examples of good taste in church architecture are found in the country. The Retreat for the Insane has enjoyed the superintendence of a man of distinguished genius and philanthropy, and has justly acquired the highest reputation. In the south part of the city is an oak tree, which is venerable for its age, and interesting on account of its connexion with the history of ancient times.

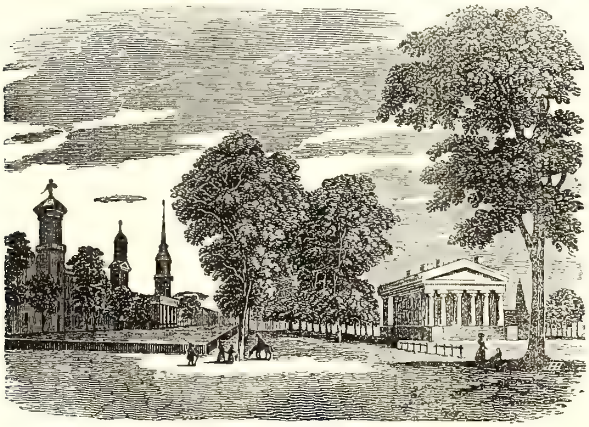


A distant view of Hartford.

When Governor Andros came to wrest the charter from the colony, in 1686, it was secretly deposited in the cleft of this tree, where it remained in safety till the deposition of the governor, on the accession of William the Third. A bridge across the Connecticut unites this city with the town of East Hartford. The legislature of the State meets here every second year Population, 10,000.

The city of *New London*, in the southeastern part of the State, has a fine harbor near the mouth of the Thames. It is irregularly built, principally at the foot of a hill, facing the east. There are many pleasant sites in the higher parts of the city, and several of the buildings are handsome ; but the general appearance of the place is not flourishing. The neighboring region is rocky and sterile, and there are no great channels of communication with the interior. The recent attention of the merchants to the whale-fisheries, has given a considerable impulse to the place, and promises to restore it to its former importance as a commercial city. Fort Trumbull is situated at the south of the town, and to the east, on the opposite side of the river, in Groton, are the remains of Fort Griswold, which during the Revolution (1781) was the scene of a well-remembered and fearful tragedy. A handsome monument, consisting of a granite obelisk 120 feet in height, has been erected here in commemoration of those who fell at this time. Population, 4,300.

The city of *New Haven* is situated at the bottom of a small bay, opening into Long Island Sound. The city is built in squares, with straight and wide streets, and its regularity and neatness are much admired. Its site is low, but the elevated grounds in the neighborhood, make the approach to the city exceedingly pleasant. One of the squares is occupied by the State-house, the college buildings, several churches and other edifices, which, with rows of elms surrounding the spot, render it one of the most beautiful public places in the country. There is an air of elegance about the city which strikes the attention of every observer, and justifies the encomiums uniformly bestowed upon it by strangers. Several of the churches are handsome, and the new State-house, which is built upon a Grecian model, is one of the most chaste specimens of architecture in New England. Here also is the State Hospital. The commerce of New Haven is considerable, and the Farmington canal makes it the channel of some trade with New York. The manufacturing establishments are numerous, comprising a great number of coach factories, several iron founderies, &c. Population, 12,000.



View in New Haven.

The city of *Middletown*, on the Connecticut, 15 miles below Hartford, is seated upon a beautiful spot on the western bank of the river, where the stream suddenly expands and makes a bend in its course, so as to present the appearance of a small lake, with high, sloping, and cultivated shores. The city has manufactories of cotton, woolen, swords, rifles, steam-engines, machinery, &c. and there are quarries of freestone on the opposite bank. On a hill, commanding a splendid prospect, are the buildings of the Wesleyan University. Population, 3,500.

Norwich is on the Thames, 14 miles above New London. The town contains three villages, the largest of which, formerly called *Chelsea Landing*, is now known as *Norwich City*. In this town are many flourishing manufactories of cotton, flannel, carpeting, paper, iron, linseed oil, &c. The *Burying Ground of the Uncases* is here pointed out to travelers, where many of the ancient Indian sachems are interred. The plain in this town was the principal summer residence of the Mohegans. Population of the city, 3,200. *Weathersfield*, 4 miles from Hartford, is a pleasant town, noted for its onion crops. The State prison, with 200 cells, is situated here. Population, 4,000. *Windsor*, 6 miles above Hartford, on Connecticut river, is also a pleasant and thriving manufacturing town, and deserves notice as having been the first settlement made by the English, in Connecticut. Population, 3,500. *Saybrook* and *Guilford* are resorted to during summer, for sea-bathing. *Berlin* and *Meriden* are celebrated for the manufacture of tin ware ; *Watertown*, *Bristol*, and *Waterbury*, for the making of wooden clocks ; *Danbury* for the manufacture of hats, and *Salisbury* for its iron mines, forges, and furnaces. *Litchfield* is a beautiful town, situated in the midst of a fertile and hilly country ; a seminary for young ladies in this place, has acquired distinguished reputation. Population, 4,500. Several of the towns upon the borders of Long Island Sound are worthy of notice. *Bridgeport* and *Norwalk* maintain an active intercourse with New York, to which, by means of steamboats and sloops, they send large quantities of produce. The former is incorporated as a city and is neatly built and beautifully situated on a good harbor. Its manufactures and trade are extensive and increasing. Population, 4,000. *Stratford*, *Fairfield*, and *Greenfield*, may be ranked among the pleasantest towns in New England. *Stonington* has a good harbor, at which the railroad from Providence terminates, and regular lines of steamboats run hence to New York.

4. *Agriculture.* The general fertility of the soil in this State, with the skill and care bestowed upon the cultivation of the land, has made some portions of it resemble a well cultivated garden. There are, however, considerable districts, which are barren and unproductive. On the whole, the farmers of Connecticut may be ranked among the first in the country for diligence, industry, and economy. To a high degree of skill in the art of husbandry, they add equal shrewdness in turning the produce of their farms to account. The chief articles of culture are maize, rye, wheat, oats, barley, buckwheat, flax, hemp, potatoes, pease, beans, &c. Orchards are numerous, and cider of the best kind is exported. The fine meadows and pastures enable the farmers to support great numbers of horses, neat cattle, and sheep. The farms are generally small, but seldom less than fifty acres. The mulberry for silk worms is also much cultivated.

5. *Commerce.* The vicinity of the great mart of New York must prevent a large portion of the commerce of this State from centering within its own territory. Most of the foreign trade is therefore diverted to the New York market, but the coasting trade along the Sound is very active. The exports from Connecticut are much the same in kind, as from Rhode Island and Massachusetts. The shipping owned in this State amounts to 70,000 tons. The shad fishery of Connecticut River furnishes a large amount of shad for exportation, and has a reputation above any other. Several ships sail to the whale-fishery from Stonington, New London, Bridgeport, &c.

6. *Manufactures.* The manufactures, taken in the aggregate, are of great value, but many of them are in the hands of the rural population, and there are few large establishments in the State. The Connecticut wares are well known all over the country, and are often carried from town to town to the most remote quarters, by the thrifty pedlers from the same State. The cotton and woolen manufacture has very much increased of late years, and tin, iron, brass, and wooden ware, coaches, combs, buttons, hats, boots, shoes, saddlery, paper, machinery, and agricultural and mechanical instruments, &c. are among the products of manufacturing industry. The aggregate value of manufactures is about $ 12,000,000. There are in the State about 150 cotton mills, with 200,000 spindles and 5,000 looms, manufacturing annually upwards of 30,000,000 yards of cloth and 3,000,000 pounds of yarn, and consuming above 12,000,000 pounds of cotton ; and 110 woolen factories, producing yearly 350,000 yards of broadcloth, 800,000 yards of flannel, 60,000 yards of cassimeres, 100,000 yards of satinet, 500,000 yards of carpeting, &c., and consuming 2,000,000 pounds of wool. The annual value of cotton and woolen manufactures is about $ 6,000,000 ; of iron ware, $ 500,000 ; of axes, 600,000 ; of boots and shoes, 1,500,000 ; of buttons and combs, 600,000 ; of paper, 800,000 ; of coaches and wagons, 800,000, &c. Vast quantities of tin ware are made in various parts of the State, and sent to every town in the Union for sale. At Canton is a manufactory of axes, which have acquired a reputation over all others in the United States. Hartford is distinguished for the manufacture of books, chiefly for education, which are distributed over all parts of the Union, and occupy a large amount of capital. Two miles from New Haven, at the foot of East Rock, is a gun-factory, established by the late Eli Whitney, the inventor of the cotton-gin. For several years it has been occupied in manufacturing muskets for the United States. It is remarkable for the excellence of its internal arrangements, and the perfection of its various mechanical processes. The establishment forms a pretty village of small stone edifices, and has a quiet and tasteful aspect. Wooden clocks form a very thriving branch of manufacturing industry in Connecticut. In the single town of Bristol, above 30,000 clocks are made annually, and whole ship-loads are exported at a time. Some of the clocks are of metal, and the whole bring an average price of 8 dollars each.

7. *Population at different periods.*

1790,	238,141	1820,	275,202
1800,	251,002	1830,	297,650
1810,	262,042	1840,	

8. *Indians.* There remain about 400 of the aborigines in Connecticut. The Mohegans are 300 in number, and have 4 or 5,000 acres of land, situated on the Thames, between New London and Norwich. At North Stonington are 50 Pequods, who possess 300 acres. At Groton is another settlement. The State government has the care of them. They manufacture brooms, baskets, mats, &c., but are generally in a wretched condition, and are little disposed to receive instruction.

9. *Government.* The present constitution of Connecticut was adopted in 1818; before this time the State was governed according to the colonial charter. The legislature is called the *General Assembly*, and consists of a Senate and House of Representatives. The representatives are chosen in towns, according to numbers, and the senators by a general ticket. All elections are annual, and the qualifications for voting amount to universal suffrage. The executive branch consists of a Governor and Lieutenant-Governor, chosen by the people. There is no religious test in office. Connecticut sends 6 representatives to Congress.

10. *Religion.* The Congregationalists have 270 ministers, and about 30,000 communicants; the Baptists 100; the Methodists 80; the Episcopalians 60. There are a few Unitarians, some Universalists, Catholics, and Shakers.

11. *Education.* Connecticut has two colleges. *Yale College*, at New Haven, is one of the oldest in the United States. It was founded in 1701, and before its establishment in this place, was for a time fixed at Killingworth, and afterwards at Saybrook. It comprises at present several buildings for students, a chapel, and other buildings for the laboratory, mineralogical cabinet, Trumbull gallery, &c. The observatory is built upon the model of the Tower of the Winds at Athens. The library contains 11,500 volumes, and the collection of minerals is the finest in the United States. A theological school and a medical institution are connected with the college. The officers are a president and 30 teachers. The students are upwards of 400. There is also a law school of high standing, attached to the institution. *Washington College*, at Hartford, was founded in 1826. It is under the direction of the Episcopal clergy. The buildings are two handsome stone edifices. The *Wesleyan University*, at Middletown, is a flourishing institution, established by the Methodists. At Hartford is the *Asylum for the Deaf and Dumb*, the first of the kind established in the United States. It has ample funds derived from lands granted by Congress. The indigent deaf and dumb of the New England States are sent hither at the expense of the several State governments. The course of instruction was begun in 1817. The number of pupils is about 130. Schools of high character exist in almost every large town. With the means of common education, this State is more amply provided than any other in the Union. The Connecticut School Fund, arising from the sale of western lands belonging to the State, amounts to above 2,000,000 dollars. The income of this fund is appropriated by the constitution of the State, to the support of primary schools, and is divided among the different counties, in proportion to the number of children.

12. *History.* Connecticut was originally a colony of Massachusetts; the Plymouth settlers despatched a company in 1633, who established themselves at Windsor, on Connecticut river. The Dutch from New York had previously built a fort at Hartford, and considered the English as intruders, although Lords Say, Seal, and Brook, with other persons, had obtained a grant of the territory from the Plymouth Company in England. Other settlers shortly arrived from Massachusetts, and laid the foundation of Hartford, in 1636. At first, the authority of Massachusetts was acknowledged, but in January, 1639, a separate government and constitution were agreed upon at Hartford, and the claim of the Plymouth colony was purchased. Another colony was soon after planted at New Haven, by emigrants from England. Both these colonies were involved in constant disputes with the Dutch settlers at New York; but in 1650 a treaty of partition was concluded, which removed all differences, and during the war between England and Holland, which immediately followed, the colonies agreed to remain at peace. A royal charter was granted to Connecticut by Charles the Second; this comprehended New Haven, but for several years the people of that settlement refused to consent to an union. Their reluctance was overcome in 1665, and from that period one government prevailed in Connecticut. James the Second annulled the charter in 1686, and Andros, who had been appointed Governor of New England, was sent to assume the government. He repaired with a body

of troops to Hartford, where the Assembly was in session, and demanded the charter. The Assembly hesitated, and put off his demand till the evening, when the instrument was brought formally into the hall and laid upon the table ; but the lights were suddenly extinguished as if by concert, and the charter conveyed away. It was concealed in a hollow tree in the town, which is still pointed out to visiters as the *Charter Oak*. Andros ruled the State arbitrarily, till deposed by the people of Boston in 1689, when the charter was resumed, and the State overnment was administered according to its forms till 1818.

CHAPTER XI. GENERAL VIEW OF THE MIDDLE STATES.

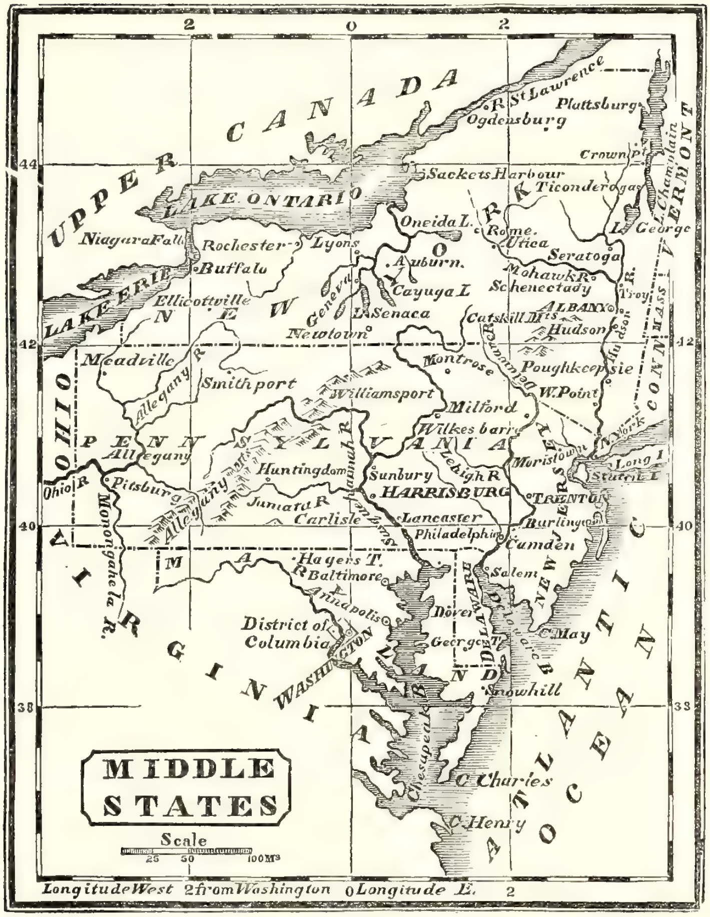
1. *Boundaries and Extent.* The five States next to be described, form a distinct geographical region, to which has been applied the general name of the Middle States. This region is bounded N. by Lakes Erie and Ontario, the St. Lawrence, and Lower Canada ; E. by New England and the Atlantic Ocean ; S. by the Potomac and Virginia, and W. by Virginia and Ohio. It extends from latitude 38° to 45° N., and from longitude 72° to 80° 36′ W., comprising an area of about 116,000 square miles.

States.	*Capitals.*	*States.*	*Capitals.*
New York, ...	Albany.	Delaware, ...	Dover.
New Jersey, . . .	Trenton.	Maryland, ...	Annapolis.
Pennsylvania, . . .	Harrisburg.		

2. *Mountains.* These States exhibit the most extensive mountainous tracts in the Union. The Appalachian chain spreads to its widest limits in Pennsylvania. None of the eminences of these mountains equals in height the loftiest summits of the New Hampshire ranges, but their general elevation is not much below that of the other mountains in New England. They are almost universally covered with forests, and there are many wild solitudes among them, which are seldom or never visited by man. In Pennsylvania, there are vast tracts among the mountains, where the most timid of all wild animals find a secure and undisturbed abode.

3. *Valleys.* The great streams have generally rocky banks, with little interval land ; but here and there extensive valleys occur. The broadest is that of the Hudson, which, in one part of its course, widens to the breadth of 40 miles.

4. *Rivers.* This region slopes on the north to the basin of the great lakes, and on the west to the Ohio basin. But its principal rivers are on the eastern declivity of the table-land, which occupies its interior, and run in a southeasterly direction into the Atlantic. The most impor-



tant of these streams are the *Hudson*, the *Susquehanna*, and the *Delaware*; the Susquehanna has the longest course, but is so much broken by its passage through the mountains as to afford little advantage for navigation without artificial aid; it drains about 28,600 square miles. The Delaware and Hudson are fine navigable rivers; the latter will be elsewhere described. The former rises in the Catskill Mountains, takes a southerly course, pierces the Blue Ridge and the Southeast Mountain, and meets the tide at Trenton. Its principal tributaries are the Lehigh and Schuylkill, from the west. Its whole course to the ocean is 317 miles, its estuary forming a wide and deep bay. The basin of the Delaware is an inclined plane, rising from the alluvial region on the level of the tide to the height of nearly 2,000 feet, with an area of upwards of 11,000 square miles. Small vessels go up to Trenton, 132 miles; above that point the navigation is impeded by shoals, but there are no falls, and the river is, therefore, navigable downward for boats, from near its source. The numerous canals, which are connected with various points of the stream, and the working of the coal mines, have greatly increased the navigation on its waters.

5. *Shores and Bays.* The whole seacoast from Raritan Bay is a low, sandy level, indented by shallow inlets, but affording few harbors. The principal bays are *Raritan*, *Chesapeake*, and *Delaware.* The river Delaware, 50 miles from its mouth, gradually expands into a wide bay, from 10 miles to 30 in width, the navigation of which is rendered somewhat difficult by shoals. Chesapeake Bay, or the estuary of the Susquehanna, is a broad and deep basin, 185 miles in length, and, for a distance of 70 miles from the ocean, varying from 15 to 40, and above that point to the mouth of the Susquehanna, from five to ten miles in breadth. It receives a number of large rivers, which open into it with broad, bay-like mouths, and are navigable for large vessels; the principal are the *Patapsco*, *Patuxent*, *Potomac*, *Rappahannock*, *York*, and *James.* In the main bay the depth of water is sufficient for the largest ships to the mouth of the Susquehanna. It affords many commodious harbors, and a safe and easy navigation.

6. *Lakes.* The great lakes, Erie and Ontario, are important features in the physical character of this region, but have been noticed in our description of North America. The small lakes of New York give an additional charm to the scenery of that State, and afford some advantages for navigation.

7. *Climate.* Although this section extends through seven degrees of latitude, the elevated position of the great central mass, from 800 to 2,000 feet above the level of the sea, renders the temperature of that portion little different from that of the Northern States. The winters are cold, but less severe than in New England, and of not so long continuance. In the lower region of the southeast, the summers are hotter, and the winters milder. The great staple of the Middle States is wheat

8. *Soil.* The soil is much better on the whole than in New England, although vast tracts of the land are unproductive. With such an extent and diversity of surface, there must, of course, be every variety. A small proportion of the territory only is under cultivation.

9. *Animals.* Most of the quadrupeds which we have mentioned in our general view of New England, are found in the Middle States. The moose is only met with along the northern border of New York. The cariboo, Canada lynx, and wolverene, are not found so far south. The beaver, fisher, woodchuck, badger, raccoon, fox, weasel, various squirrels, &c , are common to these and the more northern States. The common deer is found in small numbers on Long Island, and is abundant in the northern and western parts of New York, and in the mountainous regions of Pennsylvania. The traveler over the Alleghany Mountains will frequently dine upon venison, and, as he passes along the romantic banks of the Juniata, will hear the hounds in pursuit of the deer, and will see the hunters at their several stations, waiting till the tired animal seeks refuge in the stream, that they may shoot him down. The American elk is also occasionally found in the deep solitudes of these mountains. Black bears* and wolves are met with

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* The following descriptions are extracted from the Cabinet of Natural History, and will convey a good idea of the manners and habits of some of the wild animals in the Middle States :

A Bear Hunt, *in Delaware County, N. Y.* "On the day of the present hunt, I was joined by a very particular friend, and a great huntsman, and we took with us, for our day's sport, nine dogs, and two men to assist in leading the dogs. Five of these animals were experienced and well broken, but the other four were young, and about, for the first time, to range the forest after a bear.

"It may, perhaps, be worthy of remark, for the information of those who know but little of these animals, that old bears seldom tree to clear themselves of dogs, if there is any possibility of escape without it; and when necessity compels them to this course, they will, on the approach of a human creature, in despite of every obstacle which may oppose them, descend to the ground, and take to flight; young bears, however, will climb trees immediately, and often suffer hunters to approach beneath and shoot them. Knowing the present animal to be an old and formidable antagonist, and judging, from the noise of the dogs, that he was in a tree, my companion thought it most advisable to destroy him at once, lest he should kill more of our dogs, as by this time he had killed one, and disabled two others; he accordingly approached with much caution, until within about eighty yards of the tree in which the bear had taken refuge, when, with much deliberation, he fired at his head, and, being a first rate shot, I felt confident that the animal would have fallen dead; but, to our great surprise, the shot did not take effect, owing to the ball having struck, and glanced from a small dead limb, which was immediately in front of the bear's head, but completely unnoticed by my friend. At the report of his rifle, the bear descended backwards, for about ten feet, then doubled himself in the form of a hoop, and fell to the ground.

"It is well known among hunters, that, should an old bear be surprised on a tree, he will never descend by sliding down, but, like this bear, roll himself up and fall, sometimes from a most astonishing height, even forty or fifty feet; in which case, he always alights on his rump, and when on the side of a hill, will roll like a hoop to the bottom. I have, in several instances, shot them after such falls, and found the extent of injury received was a few slight bruises near the root of the tail. Experienced dogs are aware of this stratagem of the bear, and, so soon as he lets go his hold, they will run from under the tree to avoid his fall. This plan also, the bear adopts to clear himself of dogs, as he knows, that should he descend the tree gradually, he must encounter a host of enemies, the moment he reaches the ground. In the present instance, the dogs knew the character of their antagonist, and ran so far from under the tree, that the bear had recovered from his fall, and ran three hundred yards ere they could overtake him.

"The battle now began to rage most furiously, and we were alarmed for the fate of our dogs, and endeavored to shoot him, but found it impossible to do so without endangering some of the dogs. He then laid on his back, and would frequently drag some of the dogs to him, in order to squeeze them to death; but, being broad across the chest, failed to effect his purpose. This the old dogs knew well, and the moment he would seize them, they would close in with his breast, and slip out backwards from him.

"Our presence excited the dogs to fight with the utmost ferocity and exceeding courage, for half an hour; but the bear was an overmatch for them, and we were fearful that he would bite them in pieces, and escape at last, without our being able to get a ball into him. Amongst our dogs was a favorite old dog we called 'Drive,' and, without exception, the best dog to hunt I ever saw, and withal the most couragous. He had been our companion, both in toil and pleasure, for several years, and his encounters with wild animals were so numerous, that often has been the time that we have carried him from the field of battle, helpless and mangled, for miles, to our houses, but always on recovering he was eager to engage in deadly strife with any monster of the forest. This old dog, in the present battle, had seized the bear by the back of the neck, with so firm a hold as to disable him, in some measure, from injuring the other dogs. The bear, however, endeavored to rid himself of Drive, in every possible way, but to no effect; thinking now it would be a good opportunity to despatch him, I resolved to try the virtue of my hunting-knife, and approached him with a view of stabbing him; but the bear immediately broke away from the dogs, and then threw himself on his back again; and when in this position, I set my rifle against a tree, and attempted to make the fatal stroke. The bear anticipated my intention, and met my blow with a stroke of his paw, with so much force as to knock the knife from my hand to the distance of thirty feet, and then arose, and made a bold push at me; but I showed him a light pair of heels, and being again seized by the dogs, he was deterred from further pursuit. We then thought of other means, and commenced cutting large clubs; but whilst engaged at this, the bear, disrelishing his new enemies, cleared himself of the dogs, which were so disabled by this time, that they could hardly fight more, and made off at full speed. I seized my rifle, and, just as he was springing over an old hemlock log, I fired at him; but, being afraid of shooting the dogs, I shot too high, and only cut him across the rump, as he pitched over the log. This put him to a stand, and he ascended a tree, to the height of about forty feet, when I approached, and shot him through the heart."

An extraordinary Wolf Hunt. The following extract is part of an account given of a wolf who was run down by some hunters, who resided in the village of Deposit, in Delaware county, New York. This animal had lost three toes from one of his feet, and on this account was called the "three-legged wolf." He was particularly famous for his depredations among the sheep, and had been frequently pursued, but from his great sagacity had hitherto escaped. No less than forty-five persons had originally started in the chase, on the present occasion; but in the Peruvian and Catskill mountains, in New York, and in the Alleghanies of Pennsylvania. The panther is also more common in this wild and rugged region. The opossum is first met with in these States, not being found further north; but its southern range is very extensive. The birds are the same with those of the northeastern States, but they sometimes appear here under a different dress, and often under a different name; thus the bobolink of New England is here known as the reed-bird, and the ruffed grouse, which in the former section is called a partridge,

it was now the third day, and two only had sufficient perseverance to continue the pursuit.

"By the time it was fairly light, we were at the spot where we had left the wolf the night previous; and we had not proceeded more than three hundred yards up the hill, before we found his bed. This he had left of his own accord, and walked to the top of the hill, which was about a mile and a half to the summit, and then took to another road, which led direct to Walton, and continued until he came close to Judge Pine's farm, a distance of fifteen miles, where he had a few weeks previous killed so many sheep, and there, at the foot of another hill, he had reposed for the remainder of the night. We soon aroused him, and he took directly up this hill, which was exceedingly steep, but up which we clambered, with slow progress, until we gained the top. We had walked fifteen miles, and as I was first on the summit of the hill, I looked down, and saw W—— about thirty yards from me. The wolf kept his course on the brow of that hill for three miles, and then left it, and crossed the road which leads from Walton to Franklin, on the Susquehanna; here I stopped and waited for my companion. W—— was immediately by my side. The wood before us was open for six miles, and gradually ascending, but not so much as to prevent our taking rapid strides; as I neared the top, I slacked for W—— to come up. 'Now,' says W——, 'if the wolf keeps this course, we will have a regular descent for nine miles.'

"I then started at full speed, guarding always against jumping into holes, in which case, probably, my legs would have been broken, until I came within two miles of the foot of the hill, when I saw the rascal about three hundred yards ahead, and he saw me at the same time. We now had it as hard as we could lay to, and I saw that I gained on him but slowly, and being within one hundred and seventy-five yards of me, I fired just as he was quartering on me, but he kept his course, and rose a high mountain before us. I reloaded and proceeded, and found that he had dropped in the snow so often, as to evince the greatest fatigue, and nothing but his very life stimulated him on. On this mountain were many windfalls, and other difficult places, almost impassable for man; and had we been in pursuit of any other animal beside the 'three-legged wolf,' the number of difficulties at this time would have disheartened us; but we were intent on victory, and our infatuation blinded us to difficulties, and made us callous to suffering. Our antagonist kept his course on this hill for seven miles, but it being covered with underbrush we could not gain on him; the sun was gliding behind the distant hills, and the wolf having so much the start of us, we concluded to look out for quarters for the night; we accordingly ascended a high point on the mountain, and in a valley two miles distant we saw a house, whither we proceeded, and were immediately recognised by a young man, an inmate of the dwelling; he inquired of us 'what brought us there in our hunting-dress and with our rifles.' We told him we were after the three-legged wolf. 'Ah,' said he, 'I know him well. I hope you will not leave him here, for only three weeks since he killed eleven sheep in one night for us, and last winter he killed eighteen others for us; has he not lost a part of his left fore foot?' We told him we were satisfied he knew him, as that was his description, and that we should never give him up until we had destroyed him, unless a snow should fall so as to obliterate his track. This was fifty-two miles from our homes in a direct line, and I have no doubt we ran that day sixty miles, as we were then near Delhi, in the upper part of the county.

"We were treated with great hospitality by this family, whose name was Wilson, and every thing was done to make us and our dogs comfortable that could be devised. After drinking some tea, and eating but little, we found that sleep was more desirable than any thing else, and we retired to rest. Our dogs did not reach the house for some time after our arrival, and then they were in a wretched condition; but the family exercised great humanity towards them, especially the children, who had taken them into the parlor, and were rubbing them with dry napkins. When we arose, we found a repast prepared for us, with some doughnuts to eat through the day. This, generally, was our daily food, and for drink we would catch up a handful of snow, not allowing ourselves sufficient time to quench our thirst at a brook.

"Before light we started and tracked our way up the mountain, and I candidly say, I never felt better than at that time; my spirits were buoyant, and I trod with lighter footstep than any day previous; this was the fourth day of our hunt. I asked Capt. W—— how he felt; said he, 'I feel well; victory to-day; to-day the wolf must die.' But we felt keenly for our poor dogs; for, although they had been so well nursed, yet they could not move a step scarcely, without crying; and thus they continued yelping until they had followed us some miles. We would have left them at the farm-house, but they howled so terribly, we were obliged to let them follow us.

"About light, we got on the wolf track again; and, within three hundred yards, found he had lain down, but had risen again in the night, voluntarily, and walked not more than ten yards before he made another bed in the snow. It was evident his time was drawing to its close, for in the last bed he laid until we surprised him in the morning. His former plan was, after we had ceased chasing him, to run a few hundred yards, then lie down for about half the night, and rise again and travel off fifteen or twenty miles, into the neighborhood of his depredations, and there rest, preparatory to the next night's havoc among the sheep; but now it was pretty certain, that we had tired him too much to waste any time after sheep, and that he did not possess power to travel much further.

"When we aroused him this time, he led right off from home; but we cared not whither he went, so long as he left a track for us to follow him; but this mountain was covered with underbrush, and he appeared to be well acquainted with every inch of ground he ran over, therefore we could not push him to the extent we desired; this he was well aware of, and he would choose the most dense and difficult part of the wood; but he omitted it now, making his usual circuits about the windfalls, as he had no time to spare, and could continue his course direct. We followed him with renewed speed for about seven miles, when he left the mountain, and directed his course across a valley, six miles, to another mountain. Through this valley was clear open wood, and we pressed him so hard, that he began to lengthen his jumps, and made no more beds in the snow until he reached the above mountain, where he had opportunities again to rest, as the side on which he ran was so perpendicular that we made but slow progress. We found that he would drop himself to rest every few steps, and just keeping so far ahead as to keep out of our sight, although we were confident he saw us continually. On arriving at the top of the mountain, we found he had made a start for a thicket on the same mountain, before we could overtake him; but the course he was going was a gradual descent for about fifteen miles, until it terminated at the foot of another mountain, which was in that range called Pine Hill, on the head waters of the west branch of the Delaware River.

"I started off at full speed down this side of the mountain, making long jumps. I never felt better, and with ease to myself, I could run a mile in five minutes; my is here called, with equal impropriety, a pheasant, while the quail of New England here receives the more correct appellation of partridge. Prince Charles Bonaparte calculates the number of summer birds which are met with in the State of Pennsylvania alone, at sixty, most of which are, however, common in New England. The mocking-bird is, however, scarcely found north of the Middle States. The not less celebrated canvass-back duck, although known at the north, generally under other names, here only acquires the delicacy of savor, which gives

limbs felt invigorated, and my speed was superior to any of the former days. I continued so for nearly thirteen miles, and then came within sight of the wolf. He was then but two hundred yards in advance of me, and he had yet two miles further to go, before he could reach the mountain, and this through open wood. He used every exertion to quicken his pace, but in spite of his efforts I gained on him. I had run but one mile since I got sight of him, and when I was within forty yards of him, he looked behind at me, and, seeing no possible chance of escaping, dropped his tail between his legs, and stopped; I ran within twenty yards, and shot a ball immediately through his body,—he fell, and rose again; crack went Capt. W——'s rifle, and down he dropped dead. In a moment my foot was on his neck, but we were at a loss to express our joy, — we were in the midst of an extensive forest, and we knew not where; we charged our rifles, and gave four rounds, in commemoration of the four days' chase. Our difficulties were not yet at an end, for we were determined to take him home; we accordingly cut a small stick, and twisted one end, fastened it to his upper jaw, and, while one carried the rifles, the other dragged him on the snow.

"It appeared, on examining the wolf, that I had struck him on the flank the day previous, when I fired at him, to about the depth of the ball, cutting the flesh, but not so as to retard his progress. We continued dragging him, and followed down a small branch, which, we were convinced, would either lead us to the Delaware, or Susquehanna. After proceeding about eight miles, we came to a farm-house, occupied by a Mr. Sawyer; he soon recognised us, and, seeing us dragging a wolf, asked if we had the 'three-legged wolf?' and when we answered in the affirmative, says he, 'I will hold a day of rejoicing, for I have but few sheep left from last winter, as he then killed nine, and eight of them were my best ewes, and I suppose he came here for more mutton. Tell me,' continued he, 'what I can do for you, and it shall be done.' We asked him if he would take us in his sleigh toward our home, or until we could find some of our neighbors that would take us the balance of the way. We were then eighty miles from our village of deposit, in a direct line, and he without hesitation agreed to do so.

"The number of persons assembled at Walton, out of curiosity, was about one hundred, to see the result of the chase, as every farmer appeared to be deeply interested in the destruction of this wolf; and making a calculation we found, that the number of persons assembled there alone, had had sheep destroyed by him to nearly the amount of one thousand dollars. When, therefore, they saw our success, it appeared as though they could not do too much for us; they escorted us home with fifteen sleighs a distance of thirty miles, and our fame resounded through the whole country."

ENCOUNTER WITH A PANTHER. We only give the latter part of this account, which relates the manner in which two hunters killed a panther, after they had traced him to a cave in the rocks. The scene occurred in the State of New York, about one hundred miles north of Philadelphia.

"We approached the opening, and then the animal retired to the depth of its retreat. Our appearance now excited its displeasure, which was manifested by tremendous growls, that made the rocks ring again; it still seemed unwilling to leave such a place, which offered so much security. We now resolved to try other measures to dislodge our enemy, and commenced by threshing at the aperture with a long, stout pole; but this failed alike, with the other means we had employed, to rouse it to action. Emboldened at last by its cowardice, we attempted to punch it, but this had no other effect than to produce the most appalling growls and spitting, like a cat. Lion himself seemed sensible of the creature's want of spirit, and was with difficulty restrained from dashing in to the combat, in which event, his life would have paid the forfeit, without rendering us any assistance. Being convinced, that nothing would induce it to leave its strong-hold, I formed the resolution of shooting it, if possible, in its very den. I requested my friend to stand in readiness to shoot, or let the dog in, in case I failed or the panther should spring at me. This arrangement made, I succeeded in getting a small distance into the cave, and after remaining some time, could see perfectly well. I found, however, that there was no chance to shoot it even when so near; as, instead of getting to the extreme end of the den, the panther had concealed itself behind a rock, which jutted so much above the bottom of the cave as to shield it completely from my view. The animal's cowardice increased my courage so much, that I determined on using every means to destroy it. I requested my companion to procure me a long pole to punch it with. My plan was to lay my rifle parallel with the pole, and the moment the panther seized the end with his mouth, to fire, and then to shoot him directly in the head; and should I be unsuccessful, and the panther make a rush, I was to fall flat on my front, provided I could not get out in time and let him run over me to escape. My friend, who was a bold man, and a first rate shot, was to kill it as soon as it appeared; or if the panther stopped to give me battle, was to let the dog in and seize it, and thus give me a chance to retire. I knew this was the only mode; for, were I to present any obstacle to the animal's progress, so that it could not conveniently pass, my life would pay the forfeit for my so doing; but I had good reason to doubt its courage, and therefore felt no alarm for my safety. My friend having procured the pole, I put my plan into operation; the first push I made roused the anger and ferocity of my enemy, and convinced me, that nothing but cowardice on its part saved me from utter destruction. The cave echoed and trembled with his growling. The panther seized the end of the pole with so much fury as to bend it over the rock, and still keep its head from my view. So long as I tried to pull the stick the animal kept a firm hold; but the moment I ceased pulling it also relaxed its hold. The actions of this creature were so quick, that it was impossible to direct an aim at it with any degree of certainty; and on raising its head to seize the pole the flashes from its eyes were distinct, but so quick were they out of sight that it resembled, more than any thing else, sparks struck from a flint. So strong was this animal, that with both my hands and utmost strength, I could not pull its head one inch; after laboring some time in this way I requested my companion to procure me a pole stouter than the first, so that when the animal seized it he could not press it behind the rock, and must of necessity keep its head in view. The pole, though not answering my expectations exactly, enabled me nevertheless to discharge my piece at the monster. I was exceedingly desirous of making a fatal shot, and, as an hour had elapsed since I entered the den, I determined, at all hazards, to fire. Possibly I might hit, — eight chances out of ten were in my favor of doing so; or that, in case I missed, I could, with one spring, clear the mouth of the cave. Under these impressions I thrust the pole once more at the panther, and, the moment it was seized, leveled my rifle, and fired; at the next instant I made a spring at the opening; my feet slipped on the ice, and I slid backwards into the cave again. My friend, who was on the alert, seeing my fall, and apprehensive lest the panther had seized me, let Lion loose; he sprang over me in an instant, and made an attack upon the com it its culinary fame. The widgeon is the constant companion of the canvass-back, and loves the same morsel, but, being unable to dive himself, he watches the moment of the former's rising from the water, and snatches the envied tit-bit from his mouth. The reed-bird, also, attains its delicious flavor in the season of his visit to these States. Of the fish, the cod and the salmon are not found south of Cape Cod, but the shad-fisheries of the Delaware, Potomac, and other rivers are valuable. The oysters of the Raritan and Chesapeake are far-famed In the bordering lakes the white fish is found, but inferior in size and quality to those of the great upper lakes.

10. ***Inhabitants*,[*] *Races*, *Classes*.** Various materials compose the population of the Middle States, and, in many instances, there is little amalgamation. The most numerous body is of English descent, but there are large settlements of Germans, together with many French, Irish, and other Europeans, and a far greater proportion of blacks, than in New England. In New York and Maryland are many Germans, but in Pennsylvania, they constitute almost a separate community. In the city of New York, are many blacks, of the most dissolute and depraved habits ; in Philadelphia they are more orderly, and, through the influence of the Friends or Quakers, they are much favored. It is probable that a jury, in Philadelphia, in deciding a case between a white and a black, would, if it had a bias either way, feel it in favor of the negro.

11. ***Dress*.** In New York, Philadelphia, and Baltimore, the dress is generally richer, and more fashionable, than in any other of the cities of the Union. The Germans have some peculiarities of dress, and often wear broad-brimmed hats, and purple breeches ; the females wear very short petticoats. The Quakers have their own neat and plain fashion, which is not inelegant ; perhaps the most becoming dress that can be seen in Philadelphia, is that of a young lady of this society. It is the perfection of a neat simplicity.[†]

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mon enemy, whose fury was now aroused to the highest pitch by the ineffectual shot; the odds were fearfully great, as a single blow of the monster's paw was sufficient to hurl the poor dog with violence against the rocks, and, fortunately, beyond the reach of another, or his career would have ended on the spot. It may be supposed, that I quitted the cave with all possible despatch; for, had I remained, my condition might have been even worse than poor Lion's, whose shoulder and side exhibited three frightful scratches, of some fourteen inches long, which left four of his ribs entirely bare. Our efforts to dislodge the panther proved, thus far, unavailing; and, having spent much time and labor, and the day being excessively cold, we thought of blocking him up, until we could procure assistance, and the means necessary to accomplish his destruction ; for we felt unwilling, after all our toil, to suffer him to escape. I recollected at this instant, that whilst in the cave, I thought I saw a ray of light or small aperture at the extreme end, when the panther altered its position. I mentioned this circumstance to my companion, who proposed an examination of the back part, or outer side of the cavern; and I was to remain at the mouth, whilst he proceeded to examine. This cavern (as I have stated) was at the termination of the ledge of rocks, and jutted out considerably from the mountain, against which a great number of hemlocks had fallen, and these being covered with snow at the time, prevented our seeing the exact conformation of the ledge, until I mentioned the circumstance of my seeing the light. My friend proceeded there instantly, and soon returned with the information, that there was a small aperture in the rock about six inches wide, and one foot long ; that the panther had completely jammed up the hole with his rump, whilst its tail projected outside nearly its whole length. Here was a discovery ! I shall never forget the expression of my friend's countenance, when he exclaimed, with great emphasis, 'My gracious ! I can take him by the tail ! and I have a great mind to do so. I can then say, that I caught a full-grown, live panther by the tail.' I accordingly placed my rifle near his rump, and fired, the ball coming out near his throat. It made one spring, and roared tremendously ; bit the rocks, and with its claws attempted to enlarge the aperture, and get at us; but the wound was mortal, and it fell dead in the cave. We then entered and dragged it out; it proved to be a male of the largest size."

[*] It is necessary to remember one material distinction, which is infallibly made by every American, in the use of the word Yankee. At home, the native even of New York, though of English origin, will tell you, that he is not a *Yankee*. The term here is supposed to be perfectly provincial in its application, being confined to the natives of New England. But, out of the United States, even a Georgian does not hesitate to call himself a Yankee. The Americans are particularly fond of distinguishing any thing connected with the general enterprise, skill, or reputation by this term. Thus the southern planter, who is probably more averse than any other to admit a community of those personal qualities which are thought to mark the differences in provincial or rather State character, will talk of what a "Yankee merchant," a "Yankee negotiator," or a "Yankee soldier," can do and has done ; meaning always the people of the United States. I have heard a naval officer of rank, who was born south of the Potomac, speak of his vessel with a sort of suppressed pride, as a "Yankee man-of-war." Now I have heard the same individual allude to another, in a manner that appeared reproachful, and in which he used the word "Yankee" with peculiar emphasis.

Thus it is apparent, that the term has two significations among the Americans themselves, one of which may be called its national, and the other its local meaning. The New-Englandman evidently exults in the appellation at all times. Those of other States, with whom I have come in contact, are manifestly quite as well pleased to lay no claim to the title. I think it would result from these facts, that the people of New England are thought by the rest of their countrymen, to possess some minor points of character, in which the latter do not care to participate, and of which the New-Englandman is unconscious, or in which perhaps he deems himself fortunate , while, on the other hand, they possess certain other, and more important qualities, which are admitted to be creditable to the whole nation. After all, there is little or no feeling excited on the subject. The inhabitants of States living a thousand miles asunder, speak of each other with more kindness, in common, than the inhabitants of adjoining counties in England, or provinces in France. — *Cooper*.

[†] The following descriptions of the Quakers and Jews at Philadelphia, are extracted from "Letters from the South and West," by Arthur Singleton, Esq.

"The Quakers, the worthy descendants of the Colonists of the admirable William Penn, of patriarchal simplicity, were long dominant in this city. The term Quaker is now an inappropriate appellation, for most Quaker

12. *Language.* Though the English is the prevailing language, and is spoken with far greater purity than in the remote counties of England, yet German, Spanish, and Italian are in more extensive use than in any other section of the country. The German is diffused over large tracts of country, especially in Pennsylvania, where there are in that language, newspapers, almanacs, and an edition of the State laws, and there are many families who can speak no other language than this. The English, however, is gradually gaining on the German, and there is a law in Pennsylvania, that no one shall serve as a juror, who cannot read in that language. Spanish and Italian are only spoken in the cities by foreigners.

There is no *patois* in the Middle States, nor in any other section of the country ; and a native of any part of the United States would not only be perfectly understood in his speech at London, but he would be discovered to be a foreigner only by a few incorrect phrases, and those generally cant words. His intonation too would be rather different from that in England. It is in fact surprising, in looking over some remote or provincial paper, in which the notices are written by the advertisers themselves, to discover so few inaccuracies even in spelling ; and it is believed, that any such inaccuracy would be detected and mentioned at once by the greater number of children. The only dialect of the English, prevalent in America, is one acquired from England ; this is, the Doric of the Friends, in which it is true, that some ungrammatical liberties are taken with the personal pronouns.

men are stark as statues. There are at present various species of this sect ; the starch primitives in faith and practice ; and the hickory, or half-blooded by intermarriages with the world's people. Their largest meeting-house is a plain, but neat and very capacious brick edifice, without any paint ; which, with the adjoining yard, where lie the dead buried in white deal coffins, is encompassed by a high brick wall ; back from the noise of the streets, as all churches should be in populous cities. Indeed, the annoyance to worship is too often but partially prevented, by the iron chains hung across the pavements on the Sabbath. In public worship, the men, with their broad hats on, sit on one side, and the women on the other side of the house ; not in pews, but upon long benches. The Quakers here seem to sit ruminating. This sect uses neither of the two visible seals of other Christians, except by spiritual acceptation. There is, however, an august feeling of the Divine Presence in this stillness of the spirit, often superior to any worship manifested by the bodily organs. As a signal when the meeting is done, two elders upon the upper high seat shake hands. Notwithstanding Pope's 'Quaker Sly,' they are a quiet, industrious, beneficent, amiable folk. They have, in common, plain, useful educations ; but, with some liberal exceptions, are more deficient than others in elegant literature and embellishments. They have but little poetry or romance in their natures. They labor to make no proselytes. In their internal government, they have wise regularity and simplicity. In lieu of the lawyer, and the judge, they settle all disputations by impartial referees. Appeals may be made from their monthly, to their quarterly, and finally to their yearly meetings ; at which times the Quakeresses hold separate meetings. They do not suffer a stranger of their persuasion to lodge at a hotel, but welcome him to their homes. They are enemies to every unnecessary form, in gospel, or in law ; and, as they refuse to swear, they are ineligible to any office or trust under government. Indeed, their *affirmation* or *signature*, is deemed sufficient for all secular obligations amongst themselves. Instead of the 'Know all men by these presents,' they once had their quaint and honest,

'Warranted,
'From me and mine,
'To thee and thine,
'Forever.'

As to their not warring, and not voluntarily paying for warring, as it is a matter of conscience, I have only to remark, that, if all nations were to become Quakers, there would be no more wars. The Quakers, emphatically, and to their unfading honor, have ever been the foremost against slavery. Their phraseology is peculiar. They, very properly, call the months and days of the week, by first, second, third, and the other ordinals, as simpler, and discarding Pagan derivation. They address a man as 'Friend Such-a-one,' if they beshrew him ever so deeply, or know him to be an enemy ; and they generally adopt Bible appellations, using the diminutives, even to adults, as more endearing. They refuse to use Mr., because they will call no man master, save the Savior ; nor will they sign themselves any one's 'humble or obedient servant ;' which, they rightly say, is an unmeaning form, or hypocrisy. They do not say *you*, because it is flattery to pluralize a person ; but many say *thee* for *thou* and *thy ;* as, 'Wilt *thee* go with me ?' 'A mote is on *thee's* face.' Their *just so* garb, which, when adopted, was the court costume of the time, makes them appear like antediluvians. This drab dress changes not, whether for a wedding or a funeral. They tell you a cape is unnecessary ; but they wear three inches more brim of beaver than is necessary. The Quaker lads look like little old men ; and Quaker maids like little old women ; unless you glance under their small dove-colored bonnets, and espy their bonny round faces. Some of the young lasses, however, tastefully refine upon too absolute simplicity. At the yearly meeting, I saw one of their matrons. On her small, brown shriveled head, was a man's broad out-flapping white hat, the brim at least ten inches, with a sugar-loaf crown. She wore a white, stiff lawn apron, and a nice, three-cornered, white 'kerchief down her breast and back in peaks, and had plump pin-ball, and scissors, dangling down her right side. She walked in tall-heeled, blunt-toed, brown, prunello shoes, and leaned her veiny, skinny right palm firmly upon a smooth, oaken staff. However, she looked as if she covered a kind, old-fashioned heart ; and would, ere long, bloom into heavenly beauty. If a Quaker love a lady out of the society, he must ask liberty, and pardon for the sin of loving one of the world's people. Being published is called *passing meeting ;* and the Quakers marry themselves, in presence of witnesses. In general, the Quakers disapprove both of singing, dancing, and painting.

"On a Saturday, the Jew's sabbath, you may, if introduced, go and mourn in the synagogue. Here you may hear the Rabbi, in his ephod, chant, or rather ululate, a portion of the Levitical Law, from his unrolled parchment scroll, and expound in Hebrew from the Targum. Here you see the deluded Jews, in their scarfs and fringes, turn their faces to the east, and imitate their march to their expected Canaan. The Jews here sit in their seats below ; the Jewesses in the galleries. From the synagogue, you may walk to their burial-ground ; where, as with us, the dead are laid with their heads to the west ; so as to be upon their feet as the earth revolves on its axis ; or, to face the Messiah as he appears in the east In token of mourning, the Jews, who in this country do not wear long beards, walk unshaven for some weeks. The Jews lose two secular days in each week, by their sabbath and ours."

13. *Dwellings.* The manner of building varies much in the different States, and except in cities, there is hardly any very general mode. In some of the older towns, there are many ancient houses of the Flemish model, tiled, with gables on the street, and huge iron weathercocks on the top. In the western part of New York, the villages are built in an exceedingly neat manner, and the houses are much like a citizen's box near London, though they have more freshness of appearance. They are of wood, and painted white, and they have green window-blinds, and often verandas. In many parts, the log-houses remain. They are rude dwellings, in which the cracks are filled with mud, and the chimneys are on the outside. In Maryland and Pennsylvania are many stone houses and barns ; the latter are often of vast size. The smaller villages in these States are, many of them, poorly built of squared logs,* or with wooden frames, filled in with brick or stone and mortar. Many of these are such as might be met with in Ireland or Germany, the native countries of the inhabitants who occupy them. The cities and large towns in the Middle States are in a good style of building. In New York, the houses are chiefly of brick, and in a neat and substantial style ; in Philadelphia, and perhaps in Baltimore, there is more elegance and greater simplicity. In Philadelphia, the individual effect of a house is often lost, but the general effect of a street is admirable. The streets not devoted to trade, have wide sidewalks of brick, and these, with the marble steps to the houses, are washed every morning, and it is hardly saying too much to affirm, that they are as "neat as a parlor." The universal manner of building, in all the States, is, that one house shall accommodate but one family ; and more than one family seldom live together, even among those nearly connected by affinity.

14. *Food,*† *drink, &c.* Several of the common articles of food in the Middle States are

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* "Our buildings are made of hewn logs, on an average 24 feet long by 20 wide, sometimes a wall of stone, about a foot above the level of the earth, being raised as a foundation ; but in general four large stones are laid at the corners, and the building is raised on them. The house is covered sometimes with shingles, and sometimes with clapboards. The advantage of the latter kind of roof is, it requires no lathes nor rafters, and no nails, and is put on in much less time. It has been called a poor man's make-shift, and its use can only be justified by the poverty and other circumstances of the country. The ground-logs being laid, a saddle shaped on the upper edge, is cut with an axe at the ends, as long as the logs are thick, then the end logs are raised and a *notch* cut to fit the saddle. This is the only tie or binder they have ; and when the building is raised as many rounds as is intended, the ribs are raised, on which a course of clapboards is laid, the butts resting on a *butting-pole.* A press-pole is laid upon the clapboards immediately over the ribs, to keep them from shifting by the wind, and the pole is kept to its birth by stay-blocks, resting in the first course against the butting-pole, and then against each preceding pole. The logs are run up on the building on skids by the help of wooden forks. The most experienced axe-men are placed on the building as *corner-men ;* the rest of the company are on the ground to carry the logs and run them up. In this way a building is raised and covered in a day, without a mason and without a pound of iron. The doors and windows are afterwards cut out as the owner pleases. As the country becomes rich and more densely settled, these hastily constructed buildings will give way to more durable and more comfortable ones ; but at present there are very few buildings in the country, except on the turnpike, of any other material than logs." — *American Farmer.*

† Maple sugar is extensively manufactured and used in some parts of Pennsylvania and New York ; the following description of the manner of making it will not be uninteresting.

"We raise no cotton or sugar-cane, but we manufacture sugar from the sugar-maple, (*acer saccharinum.*) This tree, which arrives at a size rivalling the largest white oaks, flourishes in our sandy bottoms, spouty drafts, on the sides of our mountains, and the summit of the Alleghany. It is slow of growth, hard to kill, but when dead, soon rots. The roots are numerous and strong, interlaced on or near the surface of the ground, so that it is impossible to plough near them. When the sugar season begins, which is generally about the 1st of March, the sugar-maker repairs his *camp,* if it is out of order. The camp is a small shed made of logs covered with slabs or clapboards, and open at one side. Immediately before the opening, four wooden forks are planted, on which is placed a strong pole. From this are suspended as many wooden hooks as the sugar-boiler has kettles, usually four. Wood is hauled, and it requires a large quantity to boil a season. The troughs to receive the water are roughly hewn of cucumber, white or yellow pine, or wild cherry, and contain from one to three gallons. The trees are tapped with a 3-4 auger, about one inch or an inch and a half deep. In the hole is placed a spile or spout 18 inches long, made of sumach. Two spiles are put into a tree. A good camp will contain 150 or 200 trees. When the troughs are full, the boilers go round with a sled drawn by horses, on which are placed two barrels to receive the water. Having filled the barrels, they return to camp, and fill up the vessels, which consist of their meat vessels, &c. well cleaned. The water which is gathered in should be immediately boiled, because it makes the best sugar. If left to stand a few days it becomes sour and ropy. They fill up the kettles, and as it boils down, the kettles are filled up again, until all is boiled in. In order to ascertain when it is fit to *stir off,* a little of the molasses is taken out in a spoon, and dropped into a tin of cold water. If the molasses is thick, it will form a thread in the water, and if this thread will break like glass, when struck with a knife, it must be taken off the fire and is fit to stir off. The kettle is set on the ground and occasionally stirred till it cools and granulates. Great judgment is required, and the most exact attention, to take it off at the very moment it is fit. If it is taken off too soon, the sugar will be wet and tough ; if it is left on too long, it will be burnt or be bitter, and scarcely fit for use. Some boilers try it by taking a few drops of the molasses between the thumb and finger, and if it ropes like glue when it cools, it is said to be in sugar. A tree is calculated to produce a season a barrel of water of 30 gallons, and it requires six gallons to make a pound of sugar. This estimate, however, appears too large. I have never known a camp turn out, one tree with another, more than three pounds. In Jamaica it is not unusual for a gallon of raw cane liquor to yield a pound of sugar. It is supposed there can be no doubt of the fact that our trees do not produce as much as formerly. Many of the trees have been injured by fire, but the fatal cause of their deterioration is the auger. When a tree is cut down which has been frequently tapped, there is a black and rotten not raised, and therefore they are little used, in New England. The sweet potatoe, which is very nutritious and productive, is much used in New Jersey and the States south of it. It is best plainly roasted or boiled, though it is often made into puddings or pies. A very favorite and delicious cake is also made of the buckwheat flour. It is eaten hot, and with a great deal of butter. This flour is sent to all the States, but the true art of making the best cakes seems harder to be communicated. In the southern part of the Middle States, hominy is much used. It is made of a coarse meal of Indian corn, boiled to a consistency, and is generally eaten with butter. Less fish is consumed than in New England, except the shad, which are excellent, and so abundant that many barrels full are sometimes taken at a haul. Much beer is drank, and there is, perhaps, not a large town in the Middle States that has not one or more breweries ; the abundance of porter and beer has effected a great diminution in the consumption of ardent spirits. Whiskey is the most common of the distilled spirits, and perhaps the least ruinous, though it is but too cheap for the good of the community. The custom, however, of taking *juleps*, or raw spirits, in which mint is crushed, is not very common in the Middle States.

15. *Traveling*. The grand rivers and bays of the Middle States afford excellent facilities for steamboats, and in many parts the roads are excellent for stagecoaches.* In other parts, however, the roads are so bad, and the coaches so little easy, that a traveller compares them to the tub of Regulus, without the nails. The traveling by steam is expeditious, easy, and cheap. The boats are hotels, in which there is much comfort and splendor. There is, however, too much danger, and the loss of life by explosions has been grievous. Accidents have generally been traced to careless management, and they do not seem necessarily to belong to the system. As the great northwestern lakes are united by a canal with the Hudson River, a safe and pleasant mode of traveling is much used through the State of New York in canal-boats. Though they move but four miles an hour, yet, going night and day, the progress is considerable. During the latter part of summer, the number of persons who travel in steamboats between New-York and Albany is immense. One boat will often have 400, and sometimes 500 on board ; many of these visit the springs at Saratoga, and others proceed westward on the fashionable tour to Niagara Falls. At this time the canal-boats are crowded, and the great roads are thronged with stagecoaches, whirling through the beautiful towns and villages which are situated upon them. Food and lodging are furnished in the canal-boats, which are neatly fitted up. On the great roads leading from Baltimore or Philadelphia to the Western States, the number of travelers is immense. It seems, when so many are collected in these narrow defiles, that half mankind are migrating westward. From the two last-named cities, there are hundreds of large wagons with four and six horses, and these are frequently hired to carry the emigrants and their goods. Some purchase horses and lighter wagons, which can be sold at some discount in the West, and large companies are continually to be seen traveling in this way, and associating for mutual convenience. They rest at night under shelter of the woods, sleep in their wagons or under them, and cook in the open air. Others again are seen walking slowly but confidently to the land of promise. Many generations go together ; the aged grandsire leaning on his staff, his son in the prime of manhood, and his grandchildren, of which the youngest is often strapped to the back of the eldest. There is scarcely a group that is not a picture, and it is hardly possible to look on the road and not see a group. The " movers "

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streak for a foot above and below many of the auger-holes. The great miracle is, that a single sugar-tree is alive in Bedford ; but the Almighty Fabricator of the Universe has, in his infinite wisdom and beneficence, bestowed on this precious tree a tenacity of life truly wonderful. Though every year assaulted by the axe, the auger, or by fire, it clings to existence, and yields to its ungrateful possessor a luxury and necessary of life, which but for it would command a price, which would debar its use from the poor. The average price of maple sugar is from six to ten cents per pound." — *Description of Bedford County, Pennsylvania, from the American Farmer.*

* The following are the remarks of a foreign traveler, and relate to the stages and steamboats between New York and Philadelphia.

" Both stages and steamboats often belong to one line. In the former vehicles, the passengers are disposed of by a very simple and quiet process, and with an expedition that marks all the movements of this active people. You are only to imagine a hundred passengers arriving with their baggage at a point of debarkation, whence in less than ten minutes of time they were to proceed in coaches, to fancy the uproar and confusion that would occur in most countries. The steamboat lines, as they are called, manage the matter differently. Some little time before the boat arrives, the passengers give in their names, and receive in turn tickets, which bear the numbers of the coaches in which they are to proceed. You will readily suppose that all classes of people are to be found traveling in these public and cheap conveyances ; some little address is therefore necessary to dispose of an assemblage which is so motley, and where the members are of necessity to be in such familiar contact In one or two instances I heard requests urged, that families or parties might be placed together, and several changes were made in order to accommodate the applicants. There were two or three vehicles filled with jolly sons of the ocean, who appeared to relish each other's society better than they would have relished ours, and the carriage in the rear brought on a dark body of the descendants of Ham."

are as various in character and appearance as the Canterbury pilgrims. Sixty or more of the large wagons may be often seen in a line. The roads are now good, though a few years since they were hardly passable. The taverns are of all kinds, from mere hovels to large hotels. On many parts of the route, nearly every house is a tavern, though there is seldom a sign other than an upright pole. It is, however, not easy to mistake one, from the various notifications pasted on the doors and posts. On the mountains, which are near two hundred miles over, there are hospices or log-cabins erected for the poor or benighted traveler. The forest supplies wood, and a night may be passed in them with comfort. Several shelves are built up on the sides, and covered with leaves or hay for beds. Many emigrants, however, suffer from want; for a route so frequented, and in which nearly every house is a tavern, is an inauspicious one for the solicitation of charity. The old and the feeble, therefore, sometimes perish among the mountains, and there are many scenes of distress.[*]

16. *Manners, Customs, and Character.* It is not easy to describe the character of the people even of an old country, and it is a much harder task in a new country composed of inhabitants of different nations, and with different languages. There is, indeed, in the Middle States, hardly any general or peculiar character. In Pennsylvania, the Friends give a tone to society, especially in Philadelphia and some other towns, and the Germans have a similar influence in the country. New York, the great commercial emporium, has the character of all commercial cities. Trade assimilates one person to another. Philadelphia and Baltimore have escaped much more than New York the moral evils that seem to be inseparable from great cities, and which appear to be the price that men pay for what advantages there are in living in large communities. In the larger cities of the Middle States, a great many people live at public hotels and boarding-houses. These are well regulated, and the price of board varies from three to fifteen dollars a week. In a country where almost every one is engaged in active pursuits, little time is spent at table. The inmates of a hotel assemble at the sound of a bell, and in a few minutes each one has retired and resumed his occupation. The domestic servants are better in States where there is slavery. The servants, except those called "Boots," never expect, and seldom receive, any gratuity, as they are well paid by their employers. In New York there is a singular and a shocking custom, by which swine are permitted to range freely about the city. Men tolerate great evils to which they are accustomed, rather than small ones that are new. If the swine are intended to act as the city scavengers, it is but a "commutation of nuisance." What is borne in New York, would be intolerable in Philadelphia. In Baltimore and Philadelphia, the manner of life is far more quiet and domestic than in New York; and in Philadelphia, the arts and sciences are more successfully cultivated. In the latter city, the Wistar parties, or assemblies at gentlemen's houses, where the conversation is chiefly on scientific and literary subjects, are much praised by intelligent strangers.[†]

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[*] A pedestrian traveler over the mountains gives these anecdotes. — "Some of the emigrants had neither money nor friends; and some I saw that I should like to forget. In the mountains I met a poor young woman with three small children sitting by the wayside. Her dress and manner betokened better days, and her story has many parallels in the West. Her husband, after a long illness, that exhausted their slender funds, had died at Pittsburg, and she and her children were crawling, at the rate of five miles a day, back to Philadelphia. My own funds were much less than ample, but I gave her three dollars, and advised the poor woman to take passage in a return wagon to Harrisburg, where she could perhaps find some benevolent people to aid her to Philadelphia. If you charge me with recounting my alms in a spirit of vanity, the next adventure may acquit me; and I will tell it with the fidelity of Rousseau, hoping that the confession will a little expiate the guilt.

"One cold evening, as I was riding with a wagoner for a few miles, down the slope of the Laurel Hill, I beheld an old man lying by the road side, apparently dead; it would be a pleasure to me to think that he was dead in reality, for I passed him as though he had been a dog; I am troubled at the recollection. I arrived at the foot of the hill before I thought of my duty, and then I neglected it. Perhaps I thought that some other traveler would have more feeling than I had; yet I would give the best cargo the wagoner ever carried over the mountains, to know that some kind soul took the old gaffer to the village, gave him supper and lodging, and dismissed him with a little coin. The image that he was created in, should have been his defence from death by hunger, or any gradual cause, in the highway; and, if my aid could have saved his life, I should have no better hope than to die as he died, deserted by men."

[†] The following description of the reception of Lafayette at New York, will show how the people, when most excited and interested, retain their sedateness. It is thus related by a person just coming up the Narrows, from Europe: "Is there any news? roared the captain through his speaking-trumpet; the answer came against the breeze, and was nearly indistinct. The words 'Cadmus in,' were however affirmed, by more than one eager listener, to form a part of the reply. Another opportunity was not long wanting. A large coasting schooner passed within two hundred feet of us. A tar was standing on her quarter-deck, both hands thrust into the bosom of his sea jacket, eyeing our ship with a certain understanding air, that need not be explained to one who claims himself to be so promising a child of Neptune. The individual proved to be the master of the coaster, and to him our captain again roared, 'Any news?' 'Ay, ay; all alive up in the bay.'

"The vessels were sweeping by each other with great rapidity, and, without paying the customary deference to nautical etiquette, some six or seven of the passengers united in bawling out, as with one voice, 'What news? what news?' The envious winds again bore away the answer, of which no more reached our ears than the same

17. *Amusements.* The amusements in the Middle States are more various than in the other sections of the country. As the three largest cities in the Union are distant one from the other but about a hundred miles, there are, of course, greater facilities and encouragements for scenic exhibitions; and the theatres, especially in New York, are much attended. The actors are generally English, and the best English performers often come over for a season. There is a French opera company, also, who at times perform in the cities, where they give general pleasure, and the Italian opera had, for a time, some success in New York. In the latter city, there are several extensive public gardens, in which a great variety of costly fireworks, shows, and amusements are offered in the warm seasons; when lighted up at night, they are very brilliant, and they attract crowds of people. There are many small gardens, where refreshments are sold; and in Philadelphia the number of these is considerable, though some of them contain little else than a few alcoves, covered with creeping plants. Horse-racing, which in New England is almost unknown, is more honored in the Middle States; and some

perplexing words of 'Cadmus in.' When the pilot came on board, I was struck with the singular air of exultation with which he delivered himself of the intelligence with which he was evidently teeming. To the usual question, he gave a quick answer, and in nearly the same words. 'Cadmus in' again rang in our ears, without leaving us any wiser. 'If,' said our captain, 'you think so much of the arrival of the Cadmus, in 30 days from France, what will you say to that of my ship, in 21 from Liverpool?' 'Your owners may be glad to see you, but then you've not got the *old man* aboard.' 'We have them here of all years.' 'Ay, ay; but you have no Lafayette in the ship. He has been on the island with the vice-president since yesterday. This morning he is to go up to town, where he will be a welcome guest. The bay above is alive.'

"I will acknowledge, that I was touched myself at the common feeling thus betrayed by so many differently constituted individuals, and at so simple an occurrence; even the native portion of the crew suspended their labors to listen to what was said, with a general air of satisfaction. After an absence of 40 years, Lafayette had returned to visit the land in which he had laid the foundation of his fame. That he had reached a country where hearts and arms would alike be open to receive him, was sufficiently manifest in the manner of all around me; and I could not but felicitate myself in being so fortunate as to have arrived at a moment likely to elicit some of the stronger emotions of a people who are often accused of insensibility to all lively impressions, and most of whose thoughts, like their time, are said to be occupied in heedful considerations of the future."

The traveler and his companions left the ship in a boat to see the pageant in honor of Lafayette. "At length the exclamation 'There they come!' burst upon the ear; and there they did come of a certainty, in all the majesty of a fine aquatic procession, and that, too, on a scale of magnificence that was admirably suited to the surrounding waters, and, as an American would also probably say, 'to the occasion.' The procession was composed principally of steamboats, and their decks exhibited solid masses of human heads. They were some of them nearly as large as frigates, and not painted as commonly in Europe a gloomy black; they are of lively and pleasing colors, without being gaudy, and have frequently wooden canopies, that serve as additional decks, in which the passengers may walk. The largest, when crowded, will contain a thousand people.

"There was one boat among the present collection, of great size, that had been constructed to navigate the ocean, and which was provided with the usual masts and rigging of a ship. This was manned by seamen of the public service, and was gayly decorated with a profusion of flags. Our boat reached the wharf of the Lazaretto a few minutes after the procession. One of the largest of the vessels had stopped at this place, lying with her side to the shore, while the others were whirling and sailing around the spot, giving an air of peculiar life and animation to the scene. Though the whole concourse seemed animated by a common sentiment of pleasure, I did not fail to observe an air of great and subdued sobriety in the countenances of almost all around me. As my companion had the address to obtain our admission into the steamboat that had come to land, and which was intended to receive Lafayette in person, I was brought into immediate contact with its occupants; I found myself in the midst of a grave, orderly, well-dressed, but certainly exulting crowd. I heard French spoken; and by the quick, restless eyes, and elevated heads of some half dozen, I could see, that France had her representatives in the throng, and that they deemed the occasion one on which they had no reason to blush for their country.

"Lafayette entered the vessel amid a deep and respectful silence. A similar reception of a public man in Europe, would be portentous of a waning popularity. Not an exclamation, not even a greeting of any sort was audible. A lane was opened through the mass of bodies that was nearly solid, and the visiter advanced slowly towards the stern. The expression of his countenance, though gratified and affectionate, seemed bewildered. His eye, remarkable for its fire, even in the decline of life, appeared to seek in vain the features of his ancient friends. At the extremity of the boat, last in the throng, stood a gray-headed and tottering veteran. By common consent, his countrymen had paid this tribute to his services and his age. The honor of receiving the first embrace was his. I should fail in power, were I to attempt a description of the effect produced by this scene. The old man extended his arms, and as Lafayette heard his name, he flew into them like one who was glad to seek relief from the feelings by which he was oppressed. They were long silently folded in each other's arms.

"I know not, nor do I care, whether there were any present more stoical than myself; to me, this sight, simple and devoid of pageantry, was truly affecting and grand; its very nakedness heightened the effect. There was no labored address, no ready answer, no drilling of the feelings in looks and speeches. Nature was trusted to, and well did she prepare her part. Greetings now succeeded to greetings, and the vessel now left the land. There was literally a maze of steamboats; our own, containing the object of the common interest, kept steadily on her way, quickening or relaxing her speed, to accommodate her motion to that of those in company; but scarce a minute passed, that some one of the brilliant *cortege* was not sweeping along one or the other of our sides, bearing a living burden, which, as it was animated by one spirit, seemed to possess but one eye, and one object to gaze at.

"Castle Garden was the spot where Lafayette was to land. The ramparts of the castle, a terrace at the base of the work, and the whole of the fine sweep of the Battery a distance of more than a quarter of a mile, were teeming with human countenances. The reception I had witnessed was only a prelude to a more imposing spectacle; the whole population having poured out to this spot, and standing in readiness to greet their guest. To my eye, there seemed a hundred thousand souls. Our approach to the shore was now positively impeded by the boats. What passed about his person in the following scene, I am unable to say; but I saw the rocking of the multitude, as he moved among them, and heard the shouts which from time to time escaped a people, whose manners are habitually too self-restrained."

of the matches on Long Island and in Dutchess county, have been attended by vast crowds of people. Boat-races, also, are sometimes held in the calm waters about New York. Skating is practised with great animation, and thousands of people collect on the Delaware, at Philadelphia, when the stream is frozen. An ox, on such occasions, has sometimes been roasted on the ice, near the Mariner's Hotel, which is the hull of a large vessel moored in the river.*

18. *Education, &c.* The means of education are not neglected in some of the Middle States, but there is not so much knowledge generally diffused as in New England. It is not common, however, except among the foreigners and their children, to find a person who cannot read and write. Though there are more books printed at New York and Philadelphia than in all the rest of the republic, there are more houses without books or newspapers in the Middle States than in New England. The newspapers, however, from New York and Philadelphia are circulated over the whole country.

19. *Religion.* The sects are more various than in the Eastern States, and there is hardly a creed in Europe, that has not a society in the Middle States. The Catholics are numerous. The Sabbath is less strictly observed than in New England, yet in general it is not profaned; and in Philadelphia it is as much observed as in Boston.

20. *Laws.* The peculiarities of the laws are less than in the other sections of the country; as in general the laws are not made like those of the West, for new countries; or have not descended, as in New England, from puritanic legislatures; or are not, as in the South, devised to meet the exigencies of the system of slavery.

21. *Arts.* In the cities there are several eminent artists, and a general taste for the arts, and several collections of paintings open to the public. Some of the useful or mechanic arts are in a higher state at Philadelphia, than in any other city in the Union.

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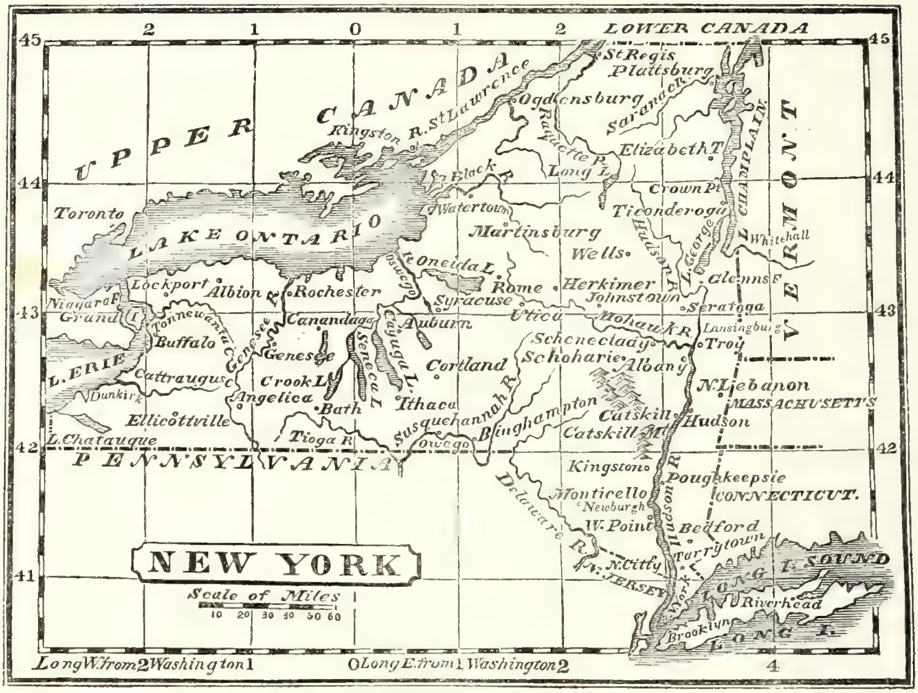
* The following extracts are from an account in the American Farmer, describing some of the manners and customs of Bedford county, Pennsylvania. The first relates to the clearing of land, after the forest trees have been girdled; the latter describes a custom which also prevails in New England.

"In eight or ten years, the timber begins to fall rapidly. When the ground is pretty well covered with old logs, the farmer goes in to nigger off. This is effected by laying the broken limbs and smaller trees across the logs, and putting fire to it. Boys or women follow to chunk up the fires. In a day or two the logs are niggered off at the length of twelve or fifteen feet; sometimes the entire tree is consumed. When the trees are thus reduced to lengths that can be handled by men, the owner has a *log rolling*. He *gives the word* to eighteen or twenty of his neighbors the day before the frolic, and when they assemble they generally divide the force into two companies. A captain is chosen by acclamation for each company, and the captains choose their companies, each naming a man alternately. When the whole is formed, they set to work, provided with handspikes, and each company exerts itself to make more log-heaps than the other. Nothing is charged for the work, and the only thing exceptionable in these frolics, is the too immoderate use of whisky. In general, great hilarity prevails; but these meetings, like all others in this country, are sometimes disgraced by dreadful combats between the persons composing them."

"The corn-husking is done at night. The neighbors meet at dark; the corn has been previously pulled, and hauled in a pile near the crib. The hands join in, the whisky bottle goes round, the story, the laugh, and the rude song is heard. Three or four hundred bushels are husked by nine or ten o'clock, a plentiful supper is provided, and sometimes the frolic ends with a *stag dance;* that is, men and boys, without females, dance like mad devils, but in good humor, to the time of a neighbor's catgut and horse-hair, not always drawn with the melody and judgment of Guillaume."

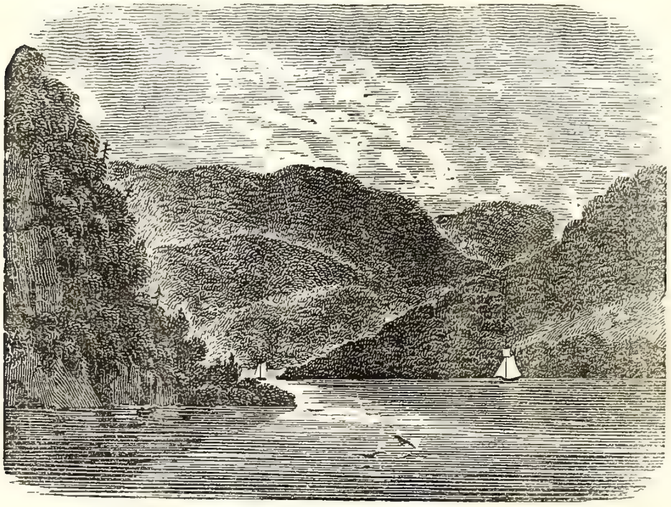
CHAPTER XII. NEW YORK.



PHYSICAL GEOGRAPHY.

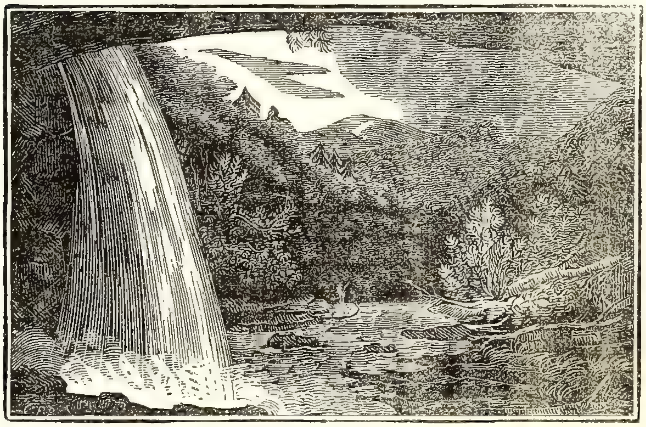
1. *Boundaries and Extent.* New York is bounded N. by Lake Ontario, the river St. Lawrence, and Lower Canada; E. by Vermont, Massachusetts, and Connecticut; S. by Pennsylvania and New Jersey; W. by Pennsylvania, Lake Erie, and Niagara River. It lies between 40° 30′ and 45° N. lat., and between 72° and 79° 55′ W. lon. It is 340 miles in length from east to west, and 304 in breadth. It contains, including Long Island, 49,000 square miles.

2. *Mountains.* The eastern part of this State only is mountainous. The Appalachian chain enters from New Jersey and Pennsylvania, and extends northeasterly across the State to Connecticut and Massachusetts. The chief branch of this chain is called the *Shawangunk Ridge.* This is broken through by the Hudson River, 50 miles above New York, where the mountains are known by the name of the *Highlands.* At this place they form a chain 16 miles in breadth, and send off a branch to the north, called the *Catskill Mountains.* This branch afterwards makes a bend to the west, and then returns in a northerly direction, and finally crosses the St. Lawrence into Canada. The general height of these eminences is about 3,000 feet, where they first leave the Hudson; after this, they constitute an irregular range of hills, called the *Helderberg Hills,* which is an elevated plain of uniform altitude, with rugged and precipitous sides.


The Highlands.

North of the Mohawk, and between lakes Champlain and Ontario, are five or six ranges of mountains, with the direction and elevation of which we are imperfectly acquainted, for which the name of *Adirondac* or *Mohegan Mountains* has been proposed. It has been recently ascertained by the geological surveyors, that some of the summits in this group exceed 5,000 feet in height. The chain which traverses Warren and Essex counties seems to be the most elevated; *Whiteface*, in the latter, has been shown to be nearly 5,000 feet above the level of the sea; and later measurements have given to another summit, which has been called *Mount Marcy*, an elevation of 5,460 feet. Some of the ridges of this group have received local names, as the *Kayaderosseras*, on the west of Lake George; the *Highlands*, of Black River; the *Hassencleaver Mountains*, of Oneida county; and the central chain has been called *Macomb's Mountains*. They received the name of *Peruvian Mountains* from the early French inhabitants, in consequence of a belief then entertained that they possessed great mineral treasures. The more northern portions of these mountains have been little explored.

The eastern face of the Catskill ridge is steep and precipitous, displaying mural precipices of great extent, and often of sufficient width to be distinguished at twenty miles' distance. They appear encircling the mountains like enormous bands, and from their summits the most grand and enchanting prospects of the great valley of the Hudson and the distant mountains of Connecticut and Massachusetts are afforded. Many conical eminences rise above the general range; of these, the height near Cairo, and the *Round Top* are the most conspicuous; the latter is 3,804 feet high. Several prominent spurs run from the eastern ridge of the Catskill, in a north-west direction, for many miles; these border the elevated ravines and valleys through which the rivers Kauterskill, Scoharie, and Platterkill flow. The cloven passages of the Kauterskill and Platterkill afford the most sublime and picturesque scenery.



Kauterskill Falls.

The road through the Kauterskill *clove*,* ascends gradually near the river, where there appears scarcely space for the road and stream; in many places, the traveler looks down from a perpendicular and dizzy height upon foaming waters, that pursue a raging course among the rocks, falling with a deafening noise from precipice to precipice. On the northern side of this river, the mountain is lofty and precipitous, exhibiting, near its base, stupendous perpendicular walls of argillaceous red sandstone and graywacke slate, in strata nearly horizontal; frequently but a small section of the horizon can be seen. Mural precipices rise in succession, and tower above the forest; the mountain top, which seems to overhang the spectator, is crowned by enormous ledges, resembling castles or fortifications in ruins, on which a few scattered pines preserve their bleak station, in defiance of tempests, and wave their dark verdure over the cliffs like nodding plumes. About two miles from the entrance of the clove, the Kauterskill is crossed by a bridge thrown from crag to crag over the brawling stream, here falling in cascades. The mountain seems torn asunder for the passage of the river, bearing high perpendicular walls of rock on its borders; a short distance above, the stream falls in a circular column nearly 100 feet. In the south, the mountain rises to a great height; its steep northern side is thickly clothed with trees, and rivulets are seen winding rapidly down the valley or sporting in cataracts.

This mountain region abounds in small streams, which dash down the rocky glens in romantic cascades, sometimes concealed by the forest, and then flashing in the light through the evergreen foliage, leaping from ledge to ledge, till they mingle their waters with the Platterkill. The ascent from the Platterkill to the base of the mountains called Round Top and High Peak, is gradual, through thick groves of maple, beech, cherry, and hemlock. The elevated valleys adjacent to these peaks, are covered with forests of lofty spruce and balsam fir, as straight as the white pine, and of a beautiful and unfading verdure ; the earth is clothed with a carpet of thick and soft velvet moss, of a delicate light green, ornamented with gay flowers and tufts of white coral-like silvery moss, and mountain sorrel.

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* From *kloof*, Dutch, a cleft.

From these summits, the traveler at dawn of day, beholds a scene of unrivaled splendor. The sun rises in dazzling brightness over the distant Tagkannuc mountains, but the immense valley of the Hudson is still clad in the shades of night. As the sun advances, objects in the valley are gradually and dimly disclosed. Here and there appear white fogs, resting on the waters ; soon these are raised and expanded into clouds by the warmth of the sun, and tinged with gold and purple sail away far below, brushing the mountains with their dewy wings. The eye now wanders over a vast expanse, like a world in miniature. The Hudson, many miles distant, appears at the base of the mountain, diminished in appearance to a rivulet. From the Highlands to Albany, every town and village on its banks can be discerned ; ships, with all their canvass spread, appear dwindled to boats. The rising sun gleaming over the rivers and on the lakes of mountain and valley, renders them like crimson floods of fire. The mountains of Lake George, the Green Mountains of Vermont, and the lofty ranges of Massachusetts and Connecticut are in view, and their blue, cloud-like summits seem mingled with the distant sky. The valley of the Hudson appears an immense plain checkered with groves and corn-fields. Sometimes the valley is filled with clouds, resembling a boundless ocean, while the insulated summits are in the sunshine and clear sky. When put in motion by the wind, the clouds of the valley roll like the waves of a tempestuous sea, and storms are often seen sweeping far below, shrouding a part of the landscape in midnight darkness. You hear the thunder roll, and see the lightning play beneath your feet, while the mountain heights around you are in a calm and cloudless sky.

The *Pine Orchard* is a spot upon these mountains about seven miles from the Hudson, where a road winds upward to the height of 2,274 feet. At this spot, upon a small plain, scattered over with forest trees, stands a hotel, called the *Catskill Mountain House*, which is the general resort of visiters in the summer. The prospect from this place embraces some of the grandest views which the mountains exhibit.

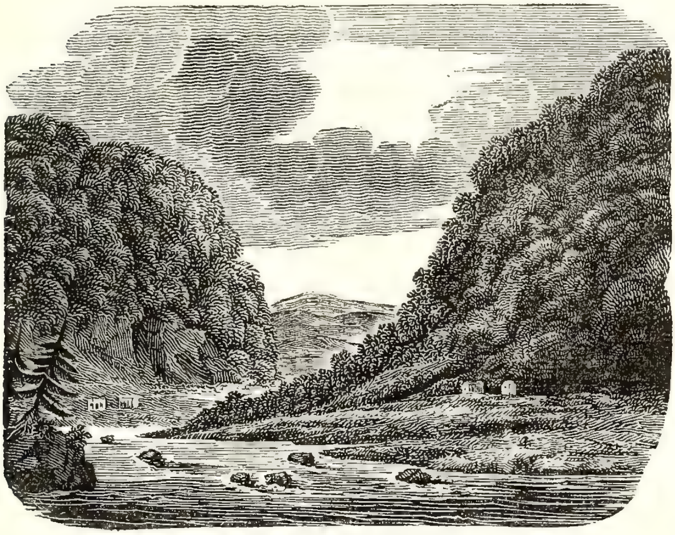
Catskill Mountain House.

3. *Valleys.* The long, narrow valley which contains Lake Champlain and the Hudson, is extremely irregular, being in some places 40 miles in breadth, and in others, contracted to the immediate neighborhood of the stream. Along the shores of the river, the land is generally high, with few level tracts. The valley of the Mohawk is seldom more than a mile and a half in breadth, and generally not more than a mile. It is bordered by two long ranges of hills, presenting little variety of aspect. In the first part of its course, it flows through extensive flats.

4. *Rivers.* The *Hudson* rises in the mountainous region on the west side of Lake Champlain in several small branches ; and pursues a southerly course in general, to the sea at New York. Its whole length is 324 miles ; from its mouth to Hudson, 130 miles, it is navigable for the largest ships ; and to Troy, 166 miles, for sloops. For 25 miles above New York it is a mile wide. Where it breaks through the highlands, its navigation suffers no impediment except the narrowing of the channel, and here its waters are deeper. The precipitous and broken cliffs which project towards the river render the scenery extremely

grand and romantic. The combined action of the tides, at the mouth of the Hudson, from its two outlets to the sea, carries the swell up the stream, at the rate of 15 or 25 miles an hour. Sturgeon, shad, and herring ascend this river in the spring, and are taken in great abundance.

The *Mohawk* rises near Oneida Lake, and runs southeasterly, 135 miles, and then joins the Hudson, a few miles above Albany. It is about 60 rods in breadth at Schenectady, gradually lessening to 12 or 16 at Utica. Its waters are clear, and the course of the river is diversified with beautiful islands. The intervals on both banks are rich and handsome.


View on the Mohawk River.

This stream is very unequal, and has many falls and rapids ; the whole descent from its source to the Hudson, is estimated at 367 feet. A canal, a mile and a half in length, connects the Mohawk with Wood Creek, running into Oneida Lake, and thence communicating with Lake Ontario.

The *Genesee* rises in Pennsylvania, and runs north across the west part of New York into Lake Ontario ; its whole course in this State is about 125 miles. Five miles from its mouth, at Rochester, are falls of 96 and 75 feet in descent ; above these the stream is navigable for boats nearly 70 miles, when two other falls occur, of 60 and 90 feet. The harbor on the lake at the mouth of this river is called *Port Genesee*. *Black River* receives its name from the color of its waters. It rises in the Highlands north of the Mohawk, and its branches interlock with those of the Hudson ; it pursues a northwesterly course of 120 miles, and falls into lake Ontario, near its outlet. It is a deep but sluggish stream, and the navigation is interrupted by falls ; a series of which, called the *Long Falls*, extend 14 miles. The land upon this stream is generally a rich, dark-colored mould. The *St. Lawrence* washes a portion of the northern limit of the State. It is wide, and has a swift current, but the navigation is obstructed by rapids. The *Oswegatchie* consists of two branches, which unite four miles above their entrance into the St. Lawrence. The east branch is about 120 miles long, and the west nearly 100 ; they are very crooked streams. The *Oswego* issues from Oneida Lake, and runs northwesterly into Lake Ontario ; it is about 40 miles long, and is a rapid stream ; its navigation is assisted by locks and canals. The *Saranac* rises in several large ponds, and flows northeasterly 65 miles into Lake Champlain at Plattsburgh ; it is not navigable, but is a good mill stream. The *Susquehanna* rises in this State in a great number of branches, that spread from east to west over a tract of 160 miles. These numerous streams are collected by two large branches, the Tioga, and the East Branch, or Susquehanna, which unite shortly after passing out of this State. The east branch has a course of 140 miles in New York, and affords navigation for many rafts of timber. The *Alleghany* and *Delaware* also rise in this State.

5. *Lakes.* Lakes *Ontario* and *Champlain* lie on the borders of this State, but a description of these will be found elsewhere. Lake *George*, one of the most beautiful lakes in the world, lies in the eastern part of this State, between Lake Champlain and the Hudson. It is 33 miles long and two broad. Its greatest depth is 60 fathoms. It abounds with fish, such as trout, bass, and perch. The clearness of its waters, and the beautiful scenery around it, have rendered this lake the admiration of every traveler. The following description is from the pen of Dr. Dwight.

"Lake George is universally considered as being in itself, and in its environs, the most beautiful object of the same nature in the United States. Several European travelers, who have visited it, and who have seen the celebrated waters of Switzerland, have given it the preference The access from the south is eminently noble, being formed by two ranges of mountains, which, commencing their career several miles south of Fort George, extend beyond Plattsburgh, and terminate near the north lines of the State, occupying a distance of about 100 miles. Those on the east are high, bold, and, in various places, naked and hoary. Those on the west are somewhat inferior, and generally covered with a thick forest to their summits. The road for the three or four last miles passes through a forest, and conceals the lake from the view of the traveler until he arrives at the eminence upon which Fort George was built. Here is opened at once a prospect, the splendor of which is rarely exceeded.

" The whole scenery of the lake is greatly enhanced in beauty and splendor, by the progressive change which the traveler sailing on its bosom perpetually finds in his position, and by the unceasing variegations of light and shade which attend his progress ; the gradual and the sudden opening of scoops and basins, of islands and points, of promontories and summits ; the continual change of their forms, and their equally gradual or sudden disappearance, impart to every object a brilliancy, life, and motion scarcely inferior to that which is seen in the images formed by the camera obscura, and in strength and distinctness greatly superior. Light and shade are here not only far more diversified, but are much more obvious, intense, and glowing, than in smooth, open countries. Every thing, whether on the land or water, is here affected by the changes of the day, and the eye, without forecast, finds itself, however disposed on ordinary occasions to inattention, instinctively engaged and fastened, with emotions approaching to rapture. The shadows of the mountains, particularly on the west, floating slowly over the bosom of the lake, and softly ascending that of the mountains on the east, presented to us in a wide expanse the uncommon and most pleasing image of one vast range of mountains, slowly moving up the ascent of another.

" The water is probably not surpassed in beauty by any in the world ; pure, sweet, pellucid, of an elegant hue, when immediately under the eye, and at very small, as well as at greater distances, presenting a gay, luminous azure, and appearing as if a soft lustre undulated everywhere on its surface, with a continual and brilliant emanation. This fine object, however, is visible only at certain times and perhaps in particular positions. While employed on its shores, or in sailing upon its bosom, the traveler is insensibly led into one habitual and irresistible consciousness of singular salubrity, sweetness, and elegance. During the mild season, he finds an additional pleasure. The warmth of the water on the surface diffuses a soft and pleasing temperature, cooler in the day, and warmer in the evening, than that of the shore, and securing the traveler alike from inconvenience and disease. The islands are interesting, on account of their number, location, size, and figure ; their number is very great, fancifully computed at 365. Few pieces of water, and none within my knowledge, are so amply furnished. Their location is exquisite ; they are solitary, in pairs, and in groups, containing from three to perhaps 30, arranged with respect to each other, and the neighboring shores, with unceasing variety, and with the happiest conceivable relations.

" Both the size and the figure of these islands are varied in the same delightful manner. The size ranges from a few feet, to a mile and a half in length ; the figure of most of them is oblong ; a small number are round ; but the variety of their appearance is peculiarly derived from their surface ; a small number of them are naked rocks, and by the power of contrast, are very interesting features in the aspect of the group. Some are partially, and most are completely covered with vegetation ; some are bushy, others are ornamented with a single tree, two, three, or many trees, and those with or without the bushy attendants ; others, forming the greater number, exhibit an entire forest. Some of them of a long and narrow structure, present through various openings in their umbrage, the sky, the mountains, the points, and other distant beautiful objects, clinging to the eye as the traveler approaches and passes them. On some stand coppices impenetrably interwoven ; on a great multitude, the lofty pine with its separate boughs, lifts its head above every other tree, waving majestically in the sky ; on others, the beech, maple, and oak, with their clustering branches and lively verdure, present the strongest example of thrifty vegetation ; at the same time, on a number not small, decayed, bare, and falling trees are finely contrasted with this vivid appearance.

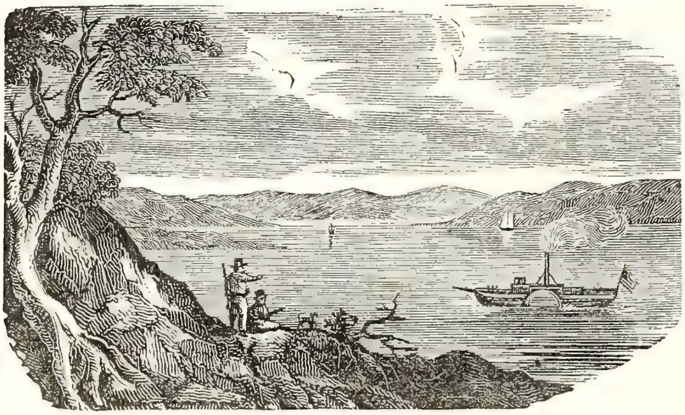
" The shores of the lake exhibit a similar and scarcely less striking aspect. On one part of the lake you are presented with a beach of light-colored sand, forming a long-extended border, and showing the purity of its waters in the strongest light ; on another you see a thick, dark forest, rising immediately from the rocky shore, overhanging and obscuring the water with its gloomy umbrage ; here the shore is scooped by a circular sweep ; the next bend is perhaps elliptical, and the third a mere indent ; the points, also, are alternately circular, obtuse, and acute angled ; not a small number of them are long, narrow slips, resembling many of the islands, shooting either horizontally, or with an easy declension far into the lake, and covered, as are all the others, with a fine variety of forest. In many places, a smooth, sloping margin, for the distance of one, two, or three miles, presents a cheerful border, as the seat of present or future cultivation ; in many others, mountainous promontories ascend immediately from the water. The beauties of the shore and of the islands are at least doubled by being imaged in the fine expanse below, where they are seen in perpetual succession, depicted with additional exquisiteness of form, and firmness of coloring.

"On the evening of Friday, the 1st of October, while we were returning from Ticonderoga, we were presented with a prospect superior to any which I ever beheld. An opening lay before us between the mountains on the west, and those on the east, gilded by the departing sunbeams. The lake alternately glassy and gently rippled, of a light and exquisite sapphire, gay and brilliant with the tremulous lustre already mentioned floating upon its surface, stretched in prospect to a vast distance, through a variety of larger and smaller apertures. In the chasm formed by the mountains, lay a multitude of islands, differing in size, shape, and umbrage, and clothed in deeply-shaded green. Beyond them, and often partly hidden behind the tall and variously-figured trees with which they were tufted, rose in the west and southwest a long range of distant mountains, tinged with a deep, misty azure, and crowned with an immense succession of lofty pines.

"Above the mountains, and above each other, were extended in numbers, long, streaming clouds of the happiest form, and painted with red and orange light, in all their diversities of tincture ; between them the sky was illumined with a vivid, yellow lustre. The tall trees on the western mountains lifted their heads in the crimson glory, and on this back-ground displayed their diversified forms with a distinctness and beauty never surpassed. On a high and exactly semicircular summit, the trees ascending far without limbs, united their crowns above, and thus formed a majestic and extensive arch in the sky, dark, exactly defined, and exactly corresponding with the arch of the summit below. Between this crown and the mountain, the vivid orange light shining through the grove, formed a third arch equally extended and elegantly striped with black by the stems of the trees. Directly over the gap, through which this combination of beauty was presented to us, the moon far southward in her handsomest crescent, sat on the eastern, and the evening star on the western side of the opening, at exactly equal distances from the bordering mountains, and shining from a sky perfectly pure and serene, finished the prospect. The crimson lustre, however, soon faded ; the mountains lost their gilding ; and the clouds, changing their fine glow into a dull, leaden-colored hue, speedily vanished. The lake, though still brilliant, became misty and dim ; the splendor of the moon and of Hesper increased and trembled on its surface, until they both retired from the western mountains, and, just as we reached the shore, left the world to the darkness of night."

Lake George was called by the French *Lac Sacrement*, on account of the purity of its waters. An outlet three miles in length, and of 100 feet descent, connects it with Lake Champlain. Many battles were fought on its borders during the early wars with the French, and in the Revolution. The mountains on the western shore abound in deer. In the spring the hunters set fire to the dry grass upon these mountains, and the tender herbs, which subsequently spring forth, attract droves of these animals ; hundreds of them are killed every year.

A cluster of small lakes lie toward the western part of this State and discharge their waters, by the Oswego River, into Lake Ontario ; the principal of these are, beginning in the east, first, *Oneida Lake*, 20 miles long from east to west, and about 3½ miles wide ; it receives Wood Creek at the east end, by which, and a canal, it communicates with the Mohawk ; this is a very beautiful lake, and is celebrated for the abundance of its fish. Second, *Skeneateles Lake*, 15 miles long and 1 to 1½ miles wide ; this also abounds with fish, and its trout are very large. Third, *Owasco Lake*, 11 miles long, and 1 to 2 wide. Fourth, *Cayuga Lake*, 38 miles long from north to south, and 1 to 4 wide ; in some places the shore of this lake is precipitous, but, in general, it is a gentle declivity from the surrounding country to the water. The waters are somewhat shallow, but sufficient for navigation. Several steamboats ply upon them, and are often crowded by water parties, in the fine season. A bridge, of a mile in length, crosses the north end of the lake. Fifth, *Seneca Lake*, nearly parallel with Cayuga, 35 miles long. and 2 to 4 wide ; at its south end is an extensive marsh. Sixth, *Crooked Lake*, 18 miles long, and from 1½ to 1 mile wide ; at the centre this lake is divided into branches ; the outlet is a fine mill stream. Seventh, *Canandaigua Lake*, 14 miles long and 1 wide, a beautiful sheet



View on Cayuga Lake.

of water, and surrounded by a fertile country. Another lake, called *Chatauque*, lies in the western extremity of the State, near Lake Erie, and sends its waters south into the Alleghany River ; it is 18 miles long, and from 1 to 3 wide ; it is surrounded by a good agricultural country.

6. *Islands. Long Island* extends along the coast of Connecticut. It is 140 miles long, from east to west, and its greatest breadth is about 20 miles ; its average breadth about 10 miles. This island is of alluvial formation, but there is a rocky ridge or spine, extending lengthwise through it, which presents summits of considerable elevation ; the broken ground of this ridge forms Brooklyn Heights, at the west end of the island ; the highest point is about 400 feet above the water. South of this ridge, the land is level and sandy. *Hempstead Plain*, on the south side of the island, is an extensive tract of wild savanna, 15 miles in length and 4 in breadth ; the most of it is now a common, and serves as a pasture for horses, sheep, and cows ; wild fowl, such as the heath-hen, plover, &c. abound here. North of the ridge, the land is more uneven, but there are no lofty swells ; the soil is a thin mould covering a layer of white sand, and in some parts a yellowish loam mixed with gravel ; the soil is in general more suitable to wheat than maize. In favorable years, the best parts of the island have yielded, with a good dressing of manure, particularly of whitefish,* 30 and 40 bushels of wheat to the acre. Immense shoals of these fish abound in the waters around the island, and no kind of manure is so cheap or rich as that which they furnish ; the number taken is prodigious ; 150,000 have been caught at a single draught. The general use of this material communicates to the air of this part of the island, an odor not the most agreeable to strangers. In the western part are many fine orchards. The apples of Newtown are equal to any in the world. East of Hempstead Plain the island is covered with stunted oaks and pines, and this part is much frequented by the pinnated grouse or heath-hen. The streams in this neighborhood abound with trout, and in the centre of the island are great numbers of wild deer. The laws prevent the deer from being hunted from January to July, and most of the other game from April to October. The shores of the island abound with the finest oysters. *Shelter Island* lies in Taconic bay, in the east end of Long Island ; it is about 7 miles long and 5 wide, and contains 8 or 9,000 acres ; it has a light, thin soil, and is well adapted to the pasturing of sheep ; some of it is rich land and well cultivated. There is a good ship channel around the island. *Fisher's Island* lies near the east extremity of Long Island ; it is 12 miles long and 1 wide ; the surface is broken, but it affords a good farm, and its dairies are very fine. *Ram Island*, at the mouth of Mystic River, on the Connecticut shore, contains a few acres of indifferent land. *Robin's Island*, in the bay between Southold and Southampton, contains about 400 acres. *Gardiner's Island* is on the north side of Long Island, with the shore of which it forms Gardiner's Bay, a safe and capacious harbor for ships. It contains about 3,000 acres of valuable land, for grain and grass ; its dairy and mutton have a high reputation. *Grand Island* lies in Niagara river above the falls ; it contains about 48,000 acres ; there is a large marshy tract in the centre, but the remainder is covered with a thick forest. *Staten Island* lies at the mouth of New York harbor ; it is about 18 miles long and 8 wide. The surface is generally rough and hilly, but on the south is a level tract of good land. This island forms the county of Richmond. *Manhattan Island*, on which stands the city of New York, is 13⅓ miles long and 1½ wide on an average. It is washed on the western side by the Hudson, and separated from the continent and Long Island on the east by narrow channels. It is generally level in the lower part, and the soil here rests upon a granite rock. At the northern extremity, the granite is succeeded by limestone, which affords excellent marble, and extends for some

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* A species of herring remarkably fat, and so full of bones that it cannot conveniently be eaten. It is much used for manure along the shores of Connecticut.

distance into the country. In the northern part the shores are rocky, and the face of the island strongly marked by abrupt crags and ravines, hills and valleys, insulated rocks and marshy inlets. The gneiss rock, which is much used for side-walk pavements and the foundations of buildings, is found in abundance here. Small quantities of porcelain clay have also been found upon this island.

7. *Bays and Harbors.* The seacoast of New York is nearly all comprised within the shores of Long Island, which contain a few harbors and inlets, but none that are much frequented by shipping. The bay or harbor of New York is very safe and capacious ; its boundaries toward the sea are Long Island and Staten Island ; it extends eight miles below the city, and is from a mile and a half to five miles broad ; it embosoms several small islands on which are fortifications. The Hudson enters this bay from the N. The East river, or channel between New York island and Long Island, communicates with Long Island Sound on the E. The Kills, a strait between Staten Island and the Jersey shore, communicate with Newark Bay and the river Raritan on the W. ; and the Narrows open into the Atlantic toward the S. At low water, the entrance by the Narrows is somewhat difficult for large ships, and the entrance from the Sound is obstructed by the rocky strait of Hell Gate. There are several harbors on Lake Ontario, the most noted of which is Sackett's Harbor toward the east end of the lake ; it is deep and safe, and was an important naval station during the war of 1812. Oswego has a good artificial harbor, and Buffalo, Dunkirk, and Portland, on Lake Erie, have similar works.

8. *Climate.* As this State embraces a wide extent of territory, stretching from the lakes of Canada to the Atlantic, it must of necessity exhibit considerable diversities of climate. A district of level country around New York allows the sea-air to penetrate far inland. Along the Hudson as far up as the Highlands, the climate is little different from that of the seacoast ; but beyond the mountains, the mild and damp winds from the sea do not penetrate. Below the Highlands, the prevailing winds are southerly through the summer, the weather is variable, and the changes of temperature, governed by the winds, frequent and sudden. The humidity of the air, thus brought in from the sea, produces frequent showers in the middle and eastern region of the State. After two or three days of sultry weather, with the wind from the south, the clouds gather round the Catskill Mountains and fall upon the country in thunder-gusts ; to this process the southerly part of the State is indebted for all its supplies of rain during summer. In winter, spring, and autumn, the rain and snow come in a great measure from the S. E. or between E. and N. In the northern part, near the St. Lawrence and Lake Champlain, the weather is less variable, and the winters are long and severe, with a clear and settled sky. In the western parts, from the Catskill Mountains to Lake Erie, southwesterly winds prevail in a great proportion throughout the year ; easterly winds are nearly unknown. In this region the average temperatures are about three degrees higher than in the same latitude further east. With these distinctions kept in view, the following particulars, which relate to that portion of the country around Albany, may serve to give a distinct idea of the climate in most parts of the State. The rigors of winter commence about the 20th of December, and end with February, or by the 10th of March, at which time the ice in the Hudson usually breaks up. Between April 15th and May 5th, most of the migratory birds appear ; and the lilac opens its blossoms from the 12th to the 30th March, with the appearance of the robin and blue-bird. The phebe bird and chimney-swallow appear about the 15th April ; the barn-swallow, martin, king-bird, eagle, kingfisher, and lark, from the 15th to the 25th, with the opening of the peach blossoms. The apple and pear are in bloom by the 25th or 30th April. The usual range of the thermometer in the middle of the day, from April 10th to May 15th, is between 64 and 72. In summer, 90° is a high temperature, and never continues but for a few days. Early wheat is cut about July 12th, and the wheat and rye harvest are completed about August 15th. Buckwheat is cut in October. Maize ripens from the middle of September to the 10th or 20th October. Oats are reaped about the middle of August. Hay is cut from the 4th to the last of July. The seed for winter rye and wheat is sown from the 20th August to the last of September. The thermometer in September often stands at 90°. From the middle of March to the last of April the weather is variable, and the changes of temperature great and sudden, though it is generally rainy, with long storms and easterly winds. May is a variable month, with the first half usually wet. In June the summer begins, and July is subject to drought. August is showery, with the greatest uniformity of temperature of any month in the year. The same weather continues to the 15th or 20th of September ; in this month there is commonly an equinoctial storm. October is extremely pleasant, and is the best month for traveling except

perhaps June. Early frosts, which destroy the tender garden vegetables, occur about September 26th ; corn ripens as late as the middle of October. The leaves of the forest trees feel the early frosts, although they are not commonly killed before the 15th or 25th October, about which time flurries of snow may be expected. December is usually cold and showery, with frequent and long storms from the E. and N. E. with rain, hail, and snow. Sleighs are little used till the end of the year. The Indian summer begins about the last of October, and extends, with occasional interruptions, into December.

9. *Soil.* This extensive State exhibits every variety of soil. In the level country of the northern part, on the east of Lake Ontario, and along the St. Lawrence, the soil is a warm, sandy loam, and constitutes a large tract of the best land for agriculture. Around Lake Champlain there is an extensive district of clayey soil, extending to the hills that skirt the Mohegan mountains. The alluvial flats of the Mohawk valley are highly fertile. The other parts of this valley have a stiff loam as far W. as the Catskill mountains extend ; beyond which the soil partakes more of the character of the western region. In this last region the hills are rocky and precipitous, and the valleys consist of black, vegetable mould. The Genesee flats in the western part of the State have long been celebrated for their fertility. West of Albany are extensive sandy plains interspersed with marshes, which are rather cold. From the Highlands north to the Mohawk, the soil is dry and warm, being in general either a gravelly or sandy loam. East of the Hudson, in this region, are rich alluvial tracts. Below the Highlands, the soil is principally dry and warm. The west end of Long Island is fertile and well cultivated. In the eastern parts are sandy, barren plains.

10. *Geology.* With some inconsiderable exceptions, the rock-formations belong entirely to the primary and older fossiliferous, or transition series. The primary rocks, which occupy the smaller portion of the surface, occur in two disconnected tracts in the southeastern and northeastern sections, but in both cases are offsets from the great primary region of New England. The southern tract includes the Highland range as before described, which passes into Massachusetts near the southeastern corner of Dutchess county, the southeast corner of the mainland between the highlands and the sea, and the northwest part of Long Island with Staten Island. The prevailing rocks of this district are gneiss, mica-slate, and primitive limestone, with some other stratified rocks ; granite occurs only in beds or veins in the other rocks. The northern primitive district lies between Lakes Champlain and Ontario. Felspathic granite, traversed by greenstone dykes, gneiss, hornblende, and primitive limestone, are the prevailing rocks of this region. The remaining rock-formations, occupying much the greater part of the surface, belong to the older fossiliferous group, and are characterized by a great simplicity of arrangement, arising from the great extent of the several members of the group, and their undisturbed horizontal position. They present a series of terraces rising by successive steps from the north toward the south, stretching nearly across the State, south of Lake Ontario and the Mohawk, from east to west, and intersected at right angles by numerous valleys of denudation, some of which are occupied by fine lakes, and others form the fertile and beautiful abodes of a prosperous population. Shales, fossiliferous limestones, sandstones, and slates, here alternate with each other in an endless variety.

11. *Minerals.* The most important metallic minerals are iron and lead. Galena or sulphuret of lead occurs in several localities, but most abundantly at Rossie and other places in St. Lawrence county, in Lewis county, at Ancram in Columbia, &c. ; but it seems doubtful whether it occurs at these last places in true veins. Iron is very generally diffused over the eastern part of the State, under the various forms of magnetic oxide, the red or specular oxide, and bog-ore, all of which are worked. Beds of magnetic ore extend, with little interruption, from Canada to the vicinity of New York. The most important localities are in Orange, Rockland, Putnam, and the northeastern counties. One of the beds at Newcomb, where the ore is of great purity and easily wrought, has been traced more than a mile, with a width of above 300 feet, and appears to extend more than four miles, and there are others of similar extent. Rich beds of the specular ore occur at several localities in St. Lawrence and Jefferson counties, among which the Kearney and Parish beds, of the brown or argillaceous variety, are of extraordinary richness. The bog-ore is also abundant, except in the northern primitive district. Sulphuret of iron, or iron pyrites, abounds in various localities, and at Canton is used in the manufacture of copperas and alum. Gypsum is pretty generally diffused through the western part of the State, and is highly valued as a manure. Hydraulic limestone, furnishing good water-cement, abounds in Madison, Onondaga, and some of the neighboring counties. Marble, freestone, gneiss, and other building stones are plentiful, and of excellent quality.

12. *Vegetable Productions.* The mountainous region produces the greater proportion of the evergreen trees of North America ; the western part is principally wooded with deciduous trees of the loftiest growth ; in the eastern parts the trees are deciduous in general, but less lofty. The most common forest trees are oak, maple, beech, walnut, butternut, chestnut, birch, tilia, poplar, cherry, sycamore or buttonwood, ash, elm, sassafras, hornbeam, sumach, alder, pine, spruce, larch, fir, hemlock, cedar, locust, laurel, mulberry, black walnut, cucumber tree, crab-apple, and thorn ; of oak there are 20 varieties ; of pine and walnut 8. There are many kinds of wild grapes.

13. *Mineral Springs.* In excellence and variety, the mineral springs of this State are not surpassed in any part of the world. No less than 148 have been analyzed, of which 63 are sulphureous, almost all in the western counties ; 23, chiefly in the eastern counties, chalybeate or saline chalybeate, 12 petrifying. The most noted go by the general names of the *Saratoga* and *Ballston Springs*, and are embraced in an extent of about 12 miles in the county of Saratoga. They are 20 in number ; their waters are saline and chalybeate, with many varieties ; some are very cold and highly charged with oxide of iron and carbonic acid gas. Their medicinal qualities are of the cathartic and tonic kind ; the multitudes that resort hither from all parts of the country during the summer, to drink their waters, are a sufficient proof of the estimation in which they are held. These springs were first discovered by remarking the track of the deer, who frequented them in such numbers as to wear a path to the spot. The *New Lebanon Springs* are near the Shaker village, not far from the Massachusetts line. Their waters are tepid (72°) and efficacious in scrofulous complaints. The *Clifton Springs* at Farmington, in the neighborhood of Geneva, are strongly sulphureous, and emit gas. There are *burning springs*, or springs of water charged with inflammable gas, in many places in the western part of the State, chiefly near Canandaigua lake. Their positions are known by little hillocks of a dark bituminous mould, through which the gas finds its way to the surface ; when set on fire, this gas burns with a steady flame. In winter, openings are made in the snow, and the gas being lighted, continues to burn in contact with nothing but the snow. There is a burning spring much resorted to by travelers at the distance of about a mile from Niagara Falls. At Dunkirk and Fredonia, on Lake Erie, there are marshy spots which emit gas (carburetted hydrogen), that has been used for lighting some houses. The salt springs are too numerous to particularize. The most important are those of Onondaga, which rise in a marsh at the head of Onondaga lake ; 50 gallons of the water yield a bushel of salt. In the southeast part of Lake Erie, about 20 rods from the shore, is a spring which rises from the bottom of the lake ; the water is thrown to the surface with some force, and the gas or oil which it contains may be set on fire ; when drank it is a powerful emetic. Petroleum springs are numerous in Cattaraugus, Erie, and Alleghany counties ; this substance is collected and sold under the name of Seneca oil, and has much repute for its supposed medicinal powers.

14. *Caves.* In the county of Ulster is a cave three quarters of a mile in length, caused by a stream running under ground. The rock which constitutes the roof and sides of the cave is a dark-colored limestone, containing impressions of shells, calcareous spar, and beautiful white and yellow stalactites. At one end is a fall of water, the depth of which has not been fathomed. At Rhinebeck, near the Hudson, is a cave in which a narrow entrance leads to several spacious rooms abounding with columns of stalactites. At Chester, in Warren county, there is a stream which passes under a natural bridge, and among many deep caverns ; the waters enter in two streams, unite in the subterranean passage, and issue in a single current under a precipice 60 feet in height.

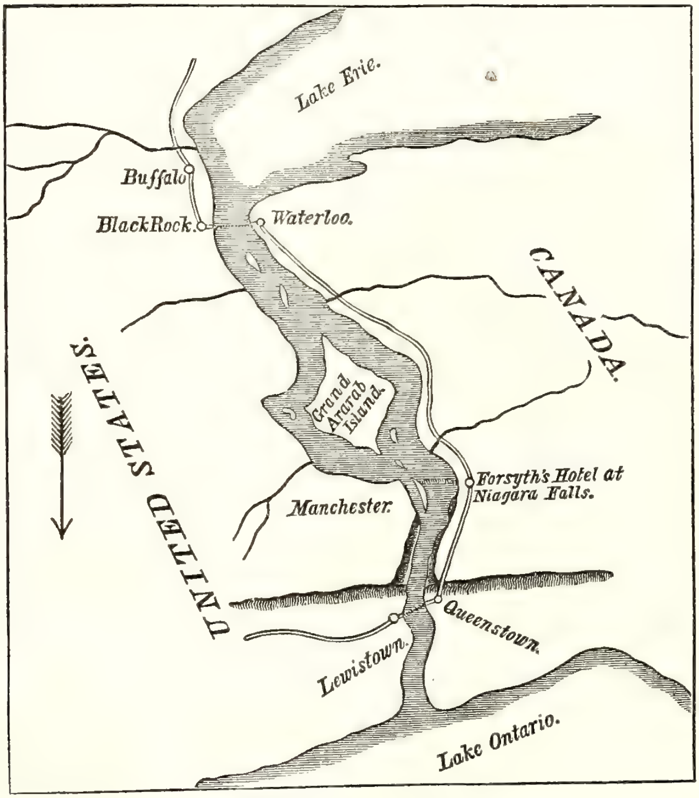
15. *Cataracts.* Although the *Falls of Niagara* are situated partly in Canada, yet, as they are usually visited from the New York side, our descriptions here may properly commence with this grandest and most magnificent object of its kind in the world. Of all the wonders of nature, perhaps the most difficult to represent by a written description, is a great cataract. Let the reader imagine the waters of the great inland seas of America discharging their immense volume through a single river three quarters of a mile wide, and rushing in one great mass over a precipice 160 feet perpendicular descent, and he may form some conception of the grandeur of the spectacle here exhibited. A small island stands perched upon the edge of the cataract, breaking the wide sheet of water as it pours over the dam. The whole cataract forms an irregular semicircle ; the Canada side presents the deepest hollow, which is called the *Horse-shoe Fall.* Visiters sometimes pass under the fall between the sheet of water and the rock,

but can only proceed a short distance without danger of being blinded by the strong, driving showers of spray and violent whirls in the air. The roar of the cataract may sometimes be heard at the distance of 40 miles.

The following description from the pen of the Rev. Mr. Greenwood of Boston, is drawn with so much taste and eloquence, that we here offer it to the reader as the best within our knowledge.

"It is no matter of surprise, that lovers of nature perform journeys of homage to that sovereign of cataracts, that monarch of all pouring floods, the Falls of Niagara. It is no matter of surprise, that, although situated in what might have been called, a few years ago, but cannot be now, the wilds of North America, 500 miles from the Atlantic coast, travelers from all civilized parts of the world have encountered all the difficulties and fatigues of the path, to behold this prince of waterfalls, amidst its ancient solitudes, and that more recently, the broad highways to its dominions have been thronged. By universal consent it has long ago been proclaimed one of the wonders of the world. It is alone in its kind. Though a waterfall, it is not to be compared with other waterfalls. In its majesty, its supremacy, and its influence on the soul of man, its brotherhood is with the living ocean and the eternal hills.

"I will not begin my description with the cataract itself, but take you back to the great lake from which the Niagara flows, so that you may go down its banks as I did, and approach the magnificent scene with a knowledge regularly and accumulatively gained of its principal accessories. For the river and the lake, nay, the whole superb chain of rivers and lakes, should be taken into view, when we would conceive as we ought of the Falls of Niagara.



Vicinity of Niagara Falls.

"As we approach the town of Buffalo, which is situated near the eastern extremity of Lake Erie, that wide-spread sheet of water opens to the sight. If the traveler has never seen the ocean, he may here imagine that he sees it. If he has, he will say that it is a sea view which here lies before him. As he looks to the west, the horizon only bounds the liquid expanse; and it is not till he descends to the shore, and marks the peculiar, quiet, and exact level of the even and sleeping lake, that he will find any thing to remind him, that he is not on the coast of the salt and swelling sea. Four miles north of Buffalo we come to the village of Black Rock;* and it is here that the boundaries of the lake contract, and its waters begin to pour themselves out through the sluiceway of the Niagara River. The river is at this place about a quarter of a mile broad; and, as I gazed on its dark, and deep, and hurrying stream, I felt a sensation of interest stealing over me, similar to that which I have experienced in reading of the preparations of men for some momentous expedition. Opposite Black Rock, on the Canada side, is the village of Waterloo, to which we were ferried over, and from which we commenced our ride down the river, which runs north into Lake Ontario. There is also a road on the American side, from Buffalo to the falls, a distance, either way, of about fifteen miles.

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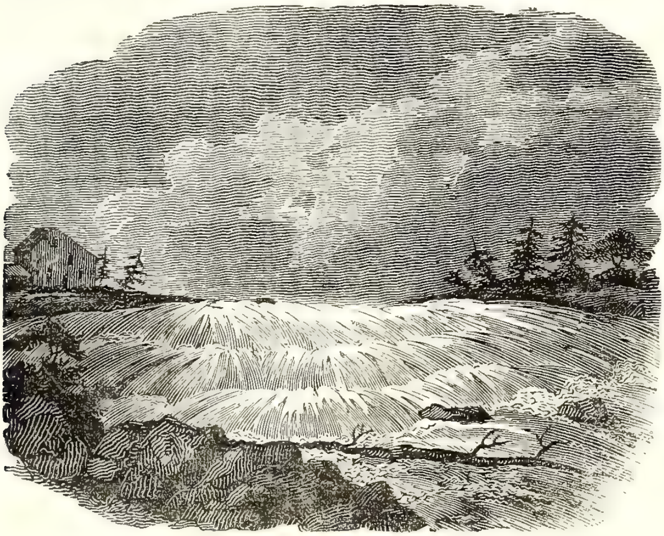
* According to Mr. Featherstonhaugh, Editor of the Monthly American Journal of Geology and Natural Science, the "seams and patches of dark-colored chert, contained in the bed of carboniferous limestone," have furnished its name to this village.

"From Waterloo we pass on by a level road, immediately on the western bank of the Niagara, and observe that the river continually becomes wider, till at length it divides into two streams which sweep round an island several miles in length. They then unite again, forming one stream as before, only that it is increased in breadth and swiftness. And now the interest thickens, and begins to grow intense. Hitherto we had been traveling on the side of a large river, it is true, but one not much distinguished otherwise, either by its motion, its shape, or the beauty of its borders. We are obliged to call on ourselves to consider where we are, and whither we are going; for Niagara itself seems unconscious of the grand associations with which it is freighted. It moves as if unmindful, or as not caring to put the traveler in mind, that its waters have come down through the whole length of Erie from the far away Huron, Michigan, Superior; that they are just about to rush over the wondrous precipice below, and then are to hasten forward into another majestic lake, and from it are to pass through the portals of a thousand islands, and the alternate rapids and lakes of a noble and romantic river, washing the feet of cities,* and so to flow on into the all-receiving sea. We are obliged to remember this, I say; for the unpretending waters, though pressing forward continually and intently, have thus far told us nothing, themselves, of their long pilgrimage behind, or the yet more eventful journey before them. But here, as they are meeting round Grand Island, they break their silence and speak, and the whole scene becomes full of spirit and meaning. Here, about three miles from the falls, you see the white-crested rapids tossing in the distance before you. Here, even in the most unfavorable state of the weather, you hear the voice of the cataract, pervading the air with its low, monotonous, continuous roar. And here you see a column of mist rising up, like a smoke in distantly burning woods, and designating the sublime scene over which it is immediately hanging. I know not that I was afterward more strongly affected, even by the falls themselves, than I was by the sight of this ever changing and yet never absent guide, this cloudy pillar, this floating, evanescent, and yet eternal testimony, which pointed out to me the exact spot which had been for so many years as a shrine to thousands, which I had heard of and read of so long, and which I had myself so often visited, though not in person, yet with my reverential wishes, yet with my mind, and with my heart. Childhood came back to me, with its indistinct, but highly wrought and passionate images; maps were unrolled; books were opened; paintings were spread; measurements were recalled; all the efforts which the art of man had made, all the tributes which his spirit had offered, at the call of the great cataract; all these associations, with other dreamlike thoughts of the wilderness, the lake, and the stream, rose up unbidden and with power within me, as I steadfastly regarded that significant, far-off mist, and knew that I, too, was soon to stand on the consecrated spot, and see, and feel.


Rapids of the Niagara.

"A mile or two is soon passed, and now we turn a little from the road to the right, in order to have a near view of the rapids. These occupy the whole breadth of the river, from shore to shore, and extend half a mile back from the falls, and are formed by the rush of the entire body of waters down a rough bed, the descent of which in the course of this half mile is fifty feet. Here all is tumult and impetuous haste. The view is something like that of the sea in a violent gale. Thousands of waves dash eagerly forward, and indicate the interruptions which they meet with from the hidden rocks, by ridges and streaks of foam. Terminating this angry picture, you distinguish the crescent rim of the British fall, over which the torrent pours and disappears. The wildness and the solitude of the scene are strikingly impressive. Nothing that lives is to be seen in its whole extent. Nothing that values its life ever dares venture it there. The waters refuse the burden of man and of man's works. Of this they give fair and audible warning, of which all take heed. They have one engrossing object before them, and they go to its accomplishment alone.

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* Montreal and Quebec are both on the St. Lawrence.

" Returning to the road, we ride the last half mile, ascending gradually till we come to the public house. A footpath through the garden at the back of the house, and down a steep and thickly wooded bank, brings us upon Table Rock, a flat ledge of limestone, forming the brink of the precipice, the upper stratum of which is a jagged shelf no more than about a foot in thickness, jutting out over the gulf below. Here the whole scene breaks upon us. Looking up the river we face the grand crescent, called the British or Horseshoe Fall.* Opposite to us is Goat Island, which divides the falls, and lower down to the left is the American Fall. And what is the first impression made upon the beholder ? Decidedly, I should say, that of beauty ; of sovereign, majestic beauty it is true, but still that of beauty, soul-filling beauty, rather than awful sublimity. Every thing is on so large a scale ; the height of the cataract is so much exceeded by its breadth, and so much concealed by the volumes of mist which wrap and shroud its feet ; you stand so directly on the same level with the falling waters ; you see so large a portion of them at a considerable distance from you ; and their roar comes up so moderated from the deep abyss, that the loveliness of the scene at first sight is permitted to take precedence of its grandeur. Its coloring alone is of the most exquisite kind. The deep sea-green of the centre of the crescent, where it is probable the greatest mass of water falls, lit up with successive flashes of foam, and contrasted with the rich, creamy whiteness of the two sides or wings of the same crescent ; then the sober gray of the opposite precipice of Goat Island, crowned with the luxuriant foliage of its forest trees, and connected still further on with the pouring snows of the greater and less American Falls ; the agitated and foamy surface of the waters at the bottom of the falls, followed by the darkness of their hue as they sweep along through the perpendicular gorge beyond ; the mist, floating about, and veiling objects with a softening indistinctness ; and the bright rainbow which is constant to the sun, — altogether form a combination of color, changing too with every change of light, every variation of the wind, and every hour of the day, which the painter's art cannot imitate, and which nature herself has perhaps only effected here.

" And the motion of these falls, how wonderfully fine it is ! how graceful, how stately, how calm ! There is nothing in it hurried or headlong, as you might have supposed. The eye is so long in measuring the vast and yet unacknowledged height, that they seem to move over almost slowly ; the central and most voluminous portion of the Horseshoe even goes down silently. The truth is, that pompous phrases cannot describe these falls. Calm and deeply-meaning words should alone be used in speaking of them. Any thing like hyperbole would degrade them, if they could be degraded. But they cannot be. Neither the words nor the deeds of man degrade or disturb them. There they pour over in their collected might and dignified flowing, steadily, constantly, as they always have been pouring since they came from the hollow of His hand, and you can add nothing to them, nor can you take any thing from them.

" As I rose on the morning following my arrival, and went to the window for an early view, a singular fear came over me, that the falls might have passed away, though their sound was in my ears. It was to be sure, rather the shadow of a fear than a fear, and reason dissipated it as soon as it was formed. But the bright things of earth are so apt to be fleeting, and we are so liable to lose what is valued as soon as it is bestowed, that I believe it was a perfectly natural feeling which suggested to me for an instant, that I had enjoyed quite as much of such a glorious exhibition as I deserved, and that I had no right to expect that it would continue, as long as I might be pleased to behold. But the falls were there, with their full, regular, and beautiful flowing. The clouds of spray and mist were now dense and high, and completely concealed the opposite shores ; but as the day advanced, and the beams of the sun increased in power, they were thinned and contracted. Presently a thunder-shower rose up from the west, and passed directly over us ; and soon another came, still heavier than the preceding. And now I was more impressed than ever with the peculiar motion of the fall ; not, however, because it

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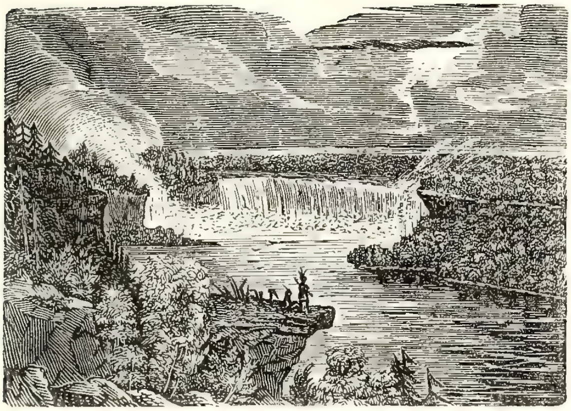
* The height of the Horseshoe Fall is 150 feet ; its breadth 2,376 feet.



Niagara Falls.

experienced a change, but because it did not. The lightning gleamed, the thunder pealed, the rain fell in torrents ; the storms were grand ; but the fall, if I may give its expression a language, did not heed them at all ; the rapids above raged no more and no less than before, and the fall poured on with the same quiet solemnity, with the same equable intentness, undisturbed by the lightning and rain, and listening not to the loud thunder.

"About half a mile below the Horseshoe fall, a commodious road has lately been cut in a slanting direction, down the side of the perpendicular cliff and through the solid rock, to the river. Here we find a regular ferry, and are conveyed in a small boat across the stream, which is now narrowed to a breadth of about 1,200 feet, to the American side. The passage is perfectly safe, and though short, delightful, as it affords a superb view of both the falls above, and of the dark river below. The current is not very rapid, and near the American side actually sets up toward the falls ; by the help of which eddy the boat regains what it had lost in the middle of the stream We land almost directly at the feet of the American fall, and by walking a little way to the right, may place ourselves in its spray. Now look up, and the height will not disappoint you. Now attend to the voice of the cataract, and it will fill your soul with awe. It seems as if the 'waters which are above the firmament' were descending from the heights of heaven, and as if 'the fountains of the great deep were broken up' from below. The noise, which permits free conversation to those who are on the bank, is here imperative and deafening. It resembles the perpetual rolling of near thunder, or the uninterrupted discharge of a battery of heavy ordnance, mingled with a strange crashing and breaking sound. This resemblance to the roar of artillery is heightened by the sight of the large bodies of spray, which are continually and with immense force exploded from the abyss. The impression of superior height is gained, not so much from the fact, that the American fall is actually ten or twelve feet higher than the British, as from your having a complete *profile* view of the one, from brink to base, which you cannot well obtain of the other.

"Flights of secure wooden steps bring us to the top of the bank,* where we again stand on a level with the descending falls. We soon found, that the greatest variety of interest was on this, the American side. The village of Manchester is situated on the rapid just above the fall. A bridge is thrown boldly over the rushing and 'arrowy' rapid to a small island, called Bath Island, where there are one or two dwellings and a paper-mill ; and from this spot another bridge runs with equal boldness to Goat Island. The whole breadth of the space thus traversed is 1072 feet.

"Goat Island is a paradise. I do not believe that there is a spot in the world which, within the same space comprises so much grandeur and beauty. It is but about a mile in circumference, and in that mile you have a forest of tall old trees, many of them draperied with climbing and cleaving ivy ; a rich variety of wild shrubs and plants ; several views of the rapids ; an opportunity to pass without discomfort under the smaller American fall, and the very finest view, I will venture to say, of the great Crescent or Horseshoe fall. Turn to the left, as you enter this Eden, and you come out into a cleared and open spot, on which you discern a log-hut, with vines round its door and windows, and a little garden in front of it, running down to the water's edge ; a flock of sheep, feeding quietly or reposing pleasantly, under scattered clumps of graceful trees ; while beyond this scene of rural repose, you see the whole field of the rapids, bearing down in full force upon this point of their division, as if determined to sweep it away. Or turn to the right, and threading the shady forest, step aside to the margin of the smaller American fall,* and bathe your hands, if you please, in its just leaping waters. Then, pursuing the circuit of the island, descend a spiral flight of stairs, and treading cautiously along a narrow footpath, cut horizontally in the side of the cliff, enter the magnificent hall formed by the falling flood, the bank of which you have just left, and command your nerves for a few moments, that, standing as you do about midway in the descent of the fall, you may look up eighty feet to its arched and crystal roof, and down eighty feet, on its terrible, and misty, and resounding floor. You will never forget that sight and sound.

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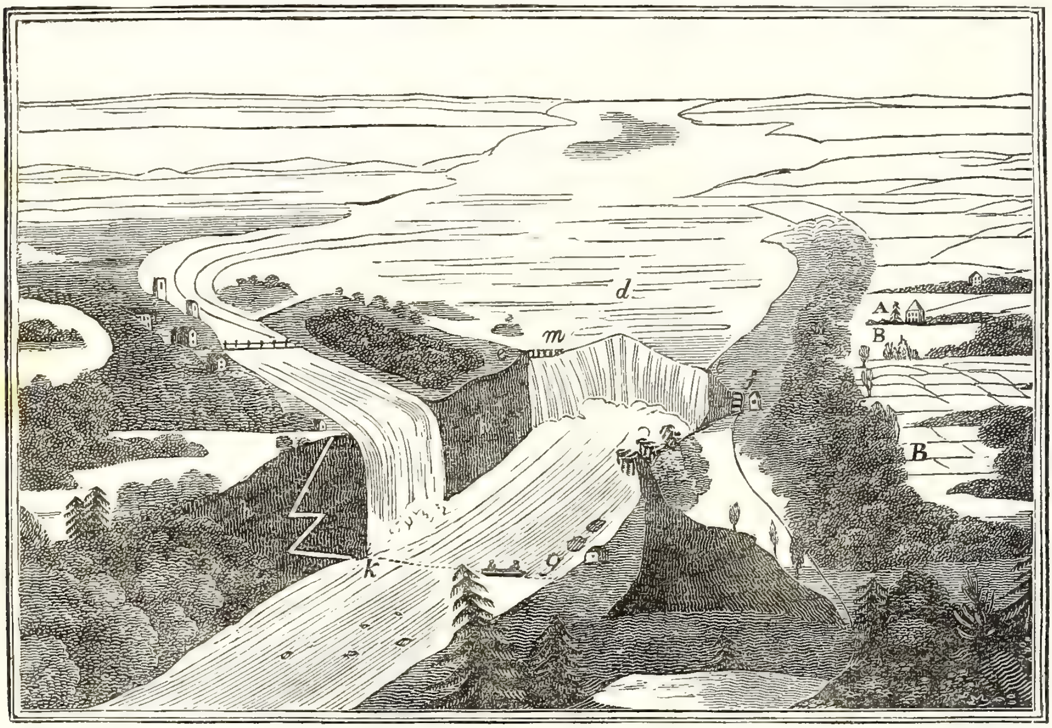
* "On this bank, near the ferry-house, there is a stone embedded in the ground, rudely carved, on which there has lately been discovered, by removing the moss which had grown over it, the following inscription ; — I. V. 1747. This is by far the most ancient date to be found in the vicinity. I. V., whoever he was, when he looked upon the falls, must have been surrounded by a perfect wilderness What poet will speak in his name, and describe his feelings, and record his thoughts, as he stood here alone with God ?"

"Retrace your steps to the upper bank, and then, if your strength holds out, proceed a short way further, to the enjoyment of a view already referred to, which excels every other in this place of many wonders. It is obtained from a bridge or platform, which has recently been thrown out over some rocks,† and is carried to the very brink of the Horseshoe fall, and even projects beyond it; so that the spectator at the end of the platform is suspended over it.

"These falls are not without their history; but like their depths, it is enveloped in clouds. Geologists suppose, and with good apparent reason, that time was when the Niagara fell over the abrupt bank at Queenstown, between six and seven miles below the place of the present falls, and that it has, in the lapse of unknown and incalculable years, been wearing away the gulf in the intermediate distance, and toiling and traveling through the rock, back to its parent lake.



Plan of the Falls. — *A*, hotel; *BB*, steep bank; *c*, brink of the precipice; *e*, Goat Island; *hh*, perpendicular rock; *d*, rapids; *m*, platform; *f*, spiral staircase by which you descend; *g*, ferry; *k*, ascent to the American side of the Falls.

After Niagara, any cataract would appear tame and insignificant in description; yet those which remain to be mentioned here would excite admiration in any part of the world. The great falls of the *Genesee*, about half a mile below Rochester, are 90 feet perpendicular; and a few rods above, is another of 12 feet, surmounted by a rapid. On the same river are several other falls. *Trenton Falls* are on West Canada Creek, a feeder of the Mohawk, 14 miles north of Utica; they consist of several grand and beautiful cascades, some of them 40 feet in descent. The river here passes through a rocky chasm four miles in length, presenting the greatest variety of cascades and rapids, boiling pools and eddies. The rock is a dark limestone, and contains abundance of marine shells. The falls of the *Cohoes* are upon the Mohawk, near its entrance into the Hudson ; their height is 62 feet ; the banks of the river are walls of rock, 140 feet high. *Little Falls* constitute a beautiful rapid some miles above. *Glen's Falls* are upon the Hudson, 18 miles above Saratoga, and are a grand rapid, falling 67 feet in a course of 500 feet. *Jessup's Falls* and *Hadley Falls* are beautiful cataracts on the same stream, a few miles above. *Claverack Falls* are upon a stream near the city of Hudson ; they descend down a precipice of dark rocks into a deep chasm shaded with forest trees. The beautiful cataracts near Ithaca comprise 438 feet of descent in a mile ; one of them falls 116 feet. The romantic cascades in the Catskill mountains have been already mentioned.

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* This is separated from the greater fall by a diminutive island, covered with trees, which tenaciously maintains its terrible position in emulation, as it were, of Goat Island. This lesser fall, small as it is compared with the others, would of itself be worth a journey.

† These are called the Terrapin Rocks.

16. *Face of the Country.* The eastern part of the State is mountainous, with level tracts interspersed ; the western is mostly level, except near the Pennsylvania line, where it becomes hilly. There is a singular elevation, called the *Ridge*, extending from Niagara River, below the falls, easterly 70 miles to Rochester on the Genesee ; this ridge is narrow, not generally exceeding 100 feet in width, and slopes away gently on both sides ; a road passes along its top. The height of the ridge above the waters of Lake Ontario, is about 160 feet, though it does not rise more than 30 feet above the surrounding country. Twenty miles south of this, is another ridge, from Genesee River to Black Rock, on Lake Erie.

POLITICAL GEOGRAPHY.

1. *Divisions.* New York is divided into 58 counties,* which are subdivided into 807 townships, comprising 9 cities and 125 incorporated villages.

Population at different periods.

1790,	340,120	1820,	1,372,812
1800,	586,756	1830,	1,918,608
1810,	959,049	1835,	2,174,517

2. *Canals.* New York surpasses every State in the Union for canals. The great *Erie and Hudson Canal*, from Albany to Buffalo, was begun in 1817, and finished in 1825, at the cost of above 7,000,000 of dollars. It is 363 miles long, and was originally 40 feet wide and 4 feet deep, but has since been deepened to 6 and widened to 70 feet. Beginning at Albany, on the Hudson, it passes up the west bank of the river nearly to the mouth of the Mohawk ; thence along the Mohawk to Schenectady, crossing the river twice by aqueducts. From Schenectady, it follows the southern bank of the Mohawk to Rome, approaching so near the river in some places, as to require embankments to support it ; one of these, at Amsterdam village, is five or six miles in length. What is called the *Long Level*, or a distance of 69½ miles without any intervening lock, begins at Frankfort, 8 miles east of Utica, and terminates near Syracuse. From this place, the canal proceeds 35 miles to Montezuma, on the eastern border of the Cayuga marshes ; these are three miles in extent. From hence to the great embankment, which is 72 feet high and nearly two miles in length, is a distance of 52 miles. Eight miles further, begins the Genesee level, which extends west to Lockport, 65 miles ; 7 miles from this place to Pendleton village, the canal enters Tonnewanda Creek, which it follows 12 miles, and then, passing up the east shore of Niagara River, joins Lake Erie at Buffalo. In the whole length of the canal, are 83 locks and 18 aqueducts. The locks are built in the most durable manner, of stone laid in water-lime, and are each 105 feet long and 15 wide. Lake Erie is 565 feet above the Hudson at Albany, and the whole rise and fall of lockage on the canal is 698 feet.

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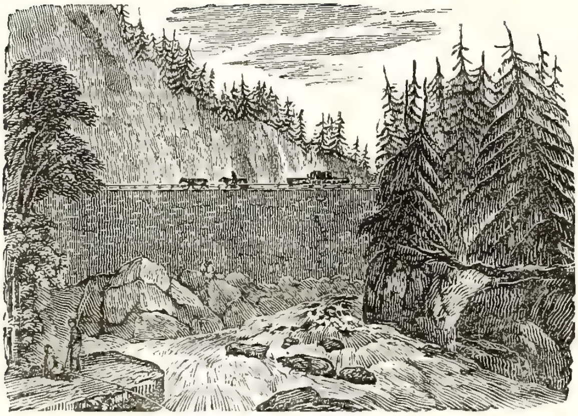
* Albany
Alleghany
Broome
Cattaraugus
Cayuga
Chatauque
Chemung
Chenango
Clinton
Columbia
Cortland
Delaware
Duchess
Erie
Essex
Franklin
Fulton
Genesee
Greene
Hamilton
Herkimer
Jefferson
Kings
Lewis
Livingston
Madison
Monroe
Montgomery
New York
Niagara
Oneida
Onondaga
Ontario
Orange
Orleans
Oswego
Otsego
Putnam
Queens
Rensselaer
Richmond
Rockland
Saratoga
Schenectady
Schoharie
Seneca
St. Lawrence
Steuben
Suffolk
Sullivan
Tioga
Tompkins
Ulster
Warren
Washington
Wayne
Westchester
Yates



Aqueduct, Erie Canal.

One of the aqueducts crosses the Genesee River at Rochester, and is 804 feet in length. Another aqueduct crosses the Mohawk at Little Falls, on three arches of 50 and 70 feet span; two others cross the same river, one 748 feet, and the other 1,188 feet in length. The sides of the canal are sometimes paved with stone, and sometimes covered with thick grass, to hinder the soil from washing away. A tow-path 4 feet above the surface of the water, and 10 feet wide, runs the whole length of the canal. A number of side cuts branch off from the canal to different places; one of these, from Syracuse to Oswego, is 38 miles long; another, from Montezuma to Cayuga and Seneca Lake, 20 miles. The *Crooked Lake Canal*, 8 miles in length, and the *Chemung Canal*, 23 miles, connect Lake Seneca with Crooked Lake and the Susquehanna.

The canal boats for the conveyance of passengers are generally 80 feet in length and 14 in width, drawing from 1 to 2 feet of water. The cabin occupies nearly the whole length of the deck, and is 8 feet in height, with single berths on each side for 30 persons. They are drawn by 3 horses, and proceed day and night 4 miles an hour; relays are furnished every 8 or 10 miles. Boats with merchandise go about 55 miles in 24 hours; the passage boats make, including delays, 85 miles' progress in the same time. The navigation upon this great canal is prodigious, and the work does honor to the sagacity and enterprise of those who planned it.

The *Chenango Canal*, begun in 1833 and completed in 1837, extends from the Erie Canal at Utica up the valleys of the Saquoit and Oriskany Creeks, and down that of the Chenango to the Susquehanna at Binghampton, 97 miles; rise from Erie Canal to summit level, 706 feet, fall thence to the Susquehanna, 303; total lockage 1,009 feet by 116 locks; there are 19 aqueducts, 12 dams, 7 reservoirs, and 17½ miles of feeders; cost 2,270,605 dollars. The *Champlain Canal* extends from the Erie Canal in Watervliet, on the south side of the Mohawk, up the valley of the Hudson, crossing that river in Saratoga, leaving it at Fort Edward, and passing down the valley of Wood Creek to Lake Champlain at Whitehall; length 64 miles, with a navigable feeder of 12 miles from the Hudson above Glenn's Falls; lockage 188 feet, by 21 locks. It was begun in October, 1817, and completed at the close of 1819; cost 1,257,604 dollars. Two other lateral canals are now in progress; one of these is the *Genesee and Alleghany Canal*, which extends from Rochester up the valley of the Genesee, and thence by that of Oil Creek to the Alleghany, at Olean, 107 miles, with a branch from Mount Morris to Danville, 15 miles; the summit level at Portage is 979 feet above the Erie Canal at Rochester, and 78 feet above Olean; total lockage 1,057 feet, by 132 locks; estimated cost 2,002,285 dollars. The northern branch or *Black River Canal* will extend from the main trunk at Rome to the foot of the High Falls in Leyden on Black River, 35 miles, with a navigable feeder of 11 miles from near Boonville to the upper streams of Black River; total lockage 1,083 feet, by 135 locks; estimated cost, including 20,000 dollars for improving the river navigation below, 1,068,437 dollars. The river is navigable 40 miles below Leyden to Carthage, whence its course is broken by falls and rapids.

The only work executed by individuals, with the exception of some local excavations, is the *Delaware and Hudson Canal*, which, beginning at Eddyville on the Roundout Creek, 3 miles from the Hudson, ascends the valley of the creek, and passing into that of the Nevisink, follows it down to the Delaware; it then runs up along the latter to the mouth of the Lackawaxen, and up this river to Honesdale in Pennsylvania; length 109 miles, depth 4 feet, width at surface 32 to 36 feet, locks 76 feet in length; lockage 950 feet, by 106 locks; cost 2,249,895 dollars; the chief object of this canal is the transportation of coal, and a railroad from Honesdale to Carbondale, 16 miles, affords access to the Wyoming coal-field; about 350 coal-boats are employed on the canal, bringing down upwards of 100,500 tons of coal annually; a good deal of lumber and other articles are also brought to market by this channel; tolls about 50,000 dollars a year.

The total length of the artificial navigable channels of this State, including the two unfinished works, is about 950 miles, made at an expense of about 20,000,000 dollars; there are also about 500 miles of river and lake navigation within its borders, and a frontier line of navigable lakes and rivers of about 400 miles. Ship-canals have been projected round the falls of Niagara, from the river Seneca to Great Sodus Bay on Lake Ontario, and from Oswego by the Oswego and Oneida rivers, Lake Oneida, and the Mohawk to the Hudson.

Amount and Value of Goods cleared on the State Canals in 1836.

	Tons.	*Value.*
Produce of the forest (lumber, timber, staves, ashes, &c.),	755,252	$7,282,438
Produce of animals (butter, cheese, provisions, wool, &c.),	24,025	5,328,028
Vegetable food (wheat, flour, &c.),	195,810	12,102,863
Other agricultural produce,	5,903	1,188,943
Manufactures,	88,810	7,380,576
Merchandise,	127,895	31,973,864
Other articles,	113,103	2,377,631
Totals,	1,310,807	67,633,343

Although there have been several reductions of the rates of toll on the canal during the last four years, there has, nevertheless, been a considerable increase of the aggregate amount collected in that period, as appears from the following statement for four years at the old rates, and for four years since the reductions commenced.

Amount of Tolls from 1829 *to* 1833, *and from* 1833 *to* 1836.

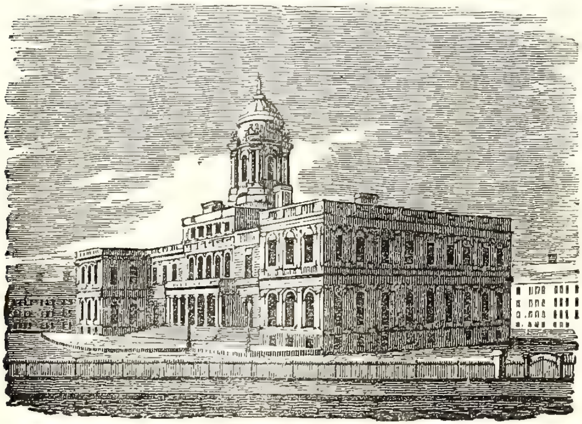
1829,	$794,055	1833 (reduct. about 30 per cent.),	$1,422,695
1830,	1,032,599	1834 (reduct. about 15 per cent.),	1,294,957
1831,	1,194,610	1835 (reduct. on lumber 37 and shingles 50 per cent.),	1,491,952
1832,	1,195,804	1836,	1,555,965
Total in 4 years,	4,218,068	Total in 4 years at reduced rates,	5,765,569

3. ***Railroads.*** The railroads in this State are wholly the work of incorporated companies, but the State has lent its credit in aid of one great work of general interest, the connexion of the Hudson and Lake Erie by a railroad through the southern counties. Upwards of 350 miles of railroad are completed, and about 500 more are in progress. The *Long Island Railroad*, which is to extend from Brooklyn to Greenport, 98 miles, has been completed as far as Hicksville, 27 miles; a ferry of 25 miles from Greenport to Stonington, will connect this road with the Stonington and Boston Railroad. The *Rensselaer and Saratoga Railroad* extends from Troy to Ballston Spa, 24½ miles. The *Mohawk and Hudson Railroad* runs from Albany to Schenectady, 15 miles, and is continued by the *Schenectady and Saratoga Railroad*, running from the former place to Saratoga Spring, 21½ miles. The *Utica and Schenectady Railroad*, running along the northern bank of the Mohawk, connects those two places, 78 miles. The *Utica and Syracuse Railroad*, 50 miles, is also finished, and now (1840,) forms the connecting link between Albany and Auburn, a distance of 139 miles, by means of the *Auburn and Syracuse Railroad*, of 25 miles, which extends from Syracuse to Auburn. The *Tonawanda Railroad* extends from Rochester through Batavia to Attica, 47 miles, and is connected with Lake Ontario by the *Rochester Railroad*, of 8 miles. The *Lockport and Niagara Falls Railroad* connects those two points, 20 miles. The *Buffalo and Niagara Falls Railroad* runs from Buffalo to the Falls, 23 miles. The *Ithaca and Owego Railroad* connects Lake Cayuga with the Susquehanna, 29 miles. The *Hudson and Berkshire Railroad* extends from the city of Hudson to the Massachusetts line towards West Stockbridge, 32 miles, and the *Catskill and Canajoharie Road* continues this route from the former place on the Hudson to the latter on the Mohawk, 70 miles. The *Harlæm Railroad*, from New York to Harlæm, although but a few miles long, is remarkable for its

solid and costly viaducts, and its tunnel of 600 feet in length, cut through a hard granite rock The proposed *New York and Albany Railroad* is to follow the route of this work. The *New York and Erie Railroad*, the greatest undertaking of the kind in the world, if we except the Charleston and Cincinnati Railroad, is to extend from Tappan on the Hudson, 24 miles above New York, through the southern border counties to Dunkirk on Lake Erie, 350 miles; the cost of the work is estimated at 5,473,000 dollars, and beside numerous valuable donations of land in the most important villages and town-sites, the company has received a loan of 3,000,000 dollars from the State. Several sections of the road are already in a forward condition.

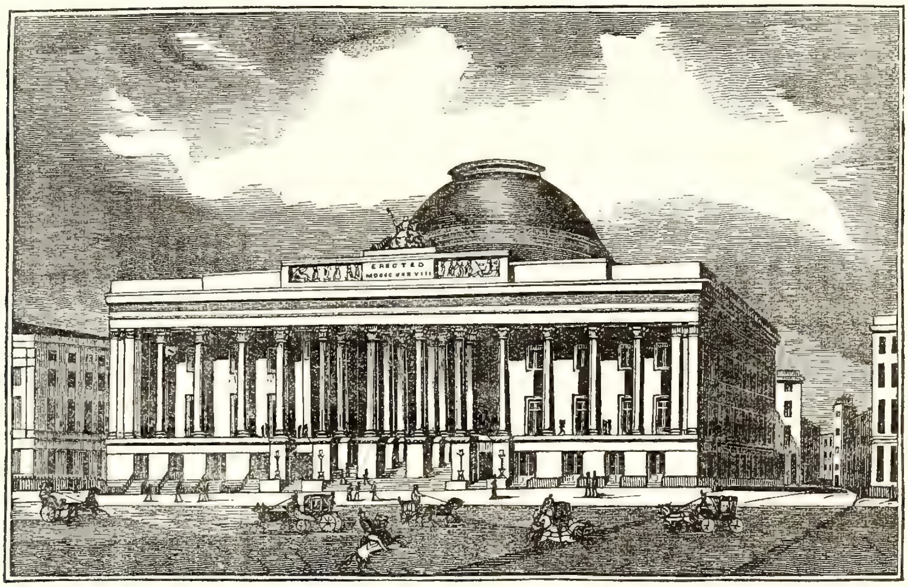
View of New York.

4. ***Cities and Towns.*** The city of *New York* occupies the first rank among the cities of the western world for population, wealth, and trade. Situated upon a noble harbor, at the mouth of one of the finest navigable rivers in the world, it enjoys a monopoly of the trade of a large and wealthy district of the interior. Hence the increase of the city has kept pace with the developement of trade and industry in the neighboring States. The rapid augmentation of population, commerce, and every material of prosperity which New York has witnessed in recent years, is almost without a parallel. Founded by the Dutch, in 1614, by the name of *New Amsterdam*, it did not for a century exceed Boston in point of numbers; but with the settlement of the interior of the State, and the opening of the navigation of the great lakes, New York has received an impulse, which, added to other advantages, has established its present and secured its future preëminence. In respect to commerce, it is already the second city in the world. It stands on the southern point of an island at the mouth of the Hudson; on the east, the shore of this island is watered by a deep channel, called East River, which separates it from Long Island, and affords a navigable communication between New York harbor and Long Island Sound. The harbor extends 8 miles south of the city to the Narrows. The ground on which the city is built rises with a moderate ascent from both rivers, which gives it a more imposing exterior than the uniform level of Philadelphia, although it by no means equals the bold and commanding aspect of Boston. The view of New York in approaching it by the Narrows from the sea is particularly fine. The bay contains many small islands, with forts and castles upon them, and the lofty spires of the city are visible at a great distance. The bay is everywhere deep, and the current rapid; it has not been frozen over for 50 years. The first settlement was made at the southern extremity, consequently that portion of the city is composed of narrow, crooked, inconvenient streets, and unsightly old buildings; but the more modern parts, and especially those which have grown up within 20 years, are regular and commodious. The finest street is Broadway, which traverses the whole city in a straight line from north to south, being 3 miles in length and 80 feet in breadth. It is occupied by shops, elegant houses,

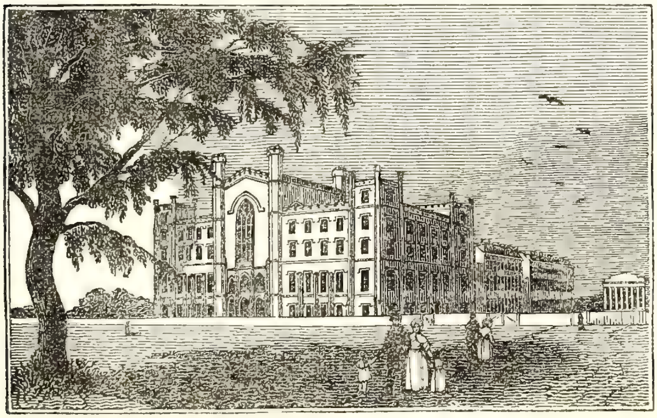


The City Hall

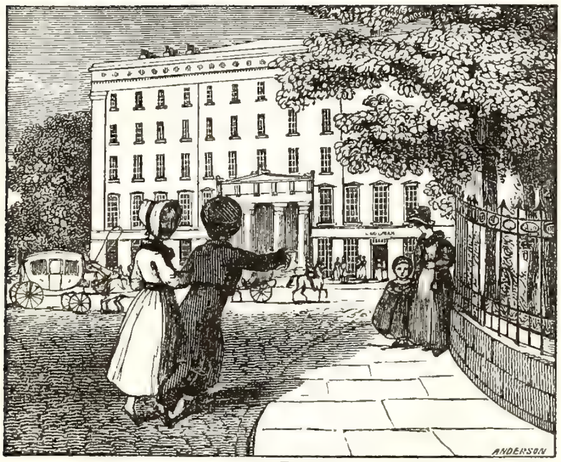
and public buildings, and few streets in the world equal it for the splendor, bustle, and fashion it exhibits. The Battery is an enclosed promenade on the shore at the southern extremity of the city ; it is planted with trees, and though not extensive, is pleasant, much frequented, and offers a delightful view of the harbor. There are several other parks or squares. That called the Park is a triangular enclosure of 11 acres in the centre of the city ; upon one side of this stands the City Hall, an elegant structure, with a front of white marble ; it is 216 feet long and 105 broad, and is one of the finest buildings in the country. The Merchants' Exchange is a splendid edifice of granite, situated in Wall Street. St. Paul's Chapel is esteemed one of the finest buildings in the city ; its spire is 234 feet high. St. John's Chapel has a spire 240 feet in height, and is the most costly church in the city, having been built at the expense of 200,000 dollars. St. Patrick's Cathedral, a Roman Catholic edifice, is the largest of all the churches, and is of stone, 120 feet long and 80 wide. There are more than 150 additional churches, some of them very costly. Trinity Church is now (1840,) rebuilding, and belongs to the oldest and richest episcopal establishment in America, possessing a property to the amount of several millions of dollars. The Unitarian Church of the Messiah, recently erected, is one of the handsomest churches in the country. The Custom-house, in Wall Street, is a massive and costly structure, 177 feet long, with a Doric portico on each front ; the Halls of Justice, a fine building in the Egyptian style ; the University Hall, an elegant structure in the collegiate style, with a front of 190 feet ; the halls of Columbia College ; the New York Hospital ; Astor House, a hotel of Quincy granite, containing 390 rooms ; the Almshouse at Bellevue ; the Penitentiary on Blackwell's Island, in East River, &c., are among the other public buildings. Numerous benevolent and charitable institutions and socie-



Merchants' Exchange (now building 1840.)



University Hall.



Astor House.

ties provide for the suffering and the poor among which are institutions for the blind, and the deaf and dumb, the city hospital, the hospital for insane paupers, orphan asylums, relief societies, &c. The Historical Society, with a library of 10,000 volumes ; the Society Library, with 30,000 ; the Mercantile Library Association, with 14,000 ; the Lyceum of Natural History, with a good museum and library ; the American Institute, for the promotion of domestic industry ; the Academy of Fine Arts ; the University ; Columbia College ; the Episcopal Theological Seminary ; the New York Theological Seminary ; the Medical College, &c. are indications of intellectual taste ; and not less than 70 periodicals, including daily newspapers, monthly magazines, and quarterlies, are published here. There are 50 free schools in the city, with about 15,000 pupils, supported at a charge of 120,000 dollars a year.

But it is chiefly as the great mart of foreign commerce and inland trade, that New York is known. The annual value of imports from foreign countries is from 70 to 80,000,000 dollars, of exports about 20,000,000. The inland and coasting trade of New York is immense, but of its actual value we have no account. The amount of shipping owned in this port is nearly 400,000 tons, or about one fifth of the whole shipping of the United States. There are about 2,000 arrivals annually from foreign countries, and nearly 5,000 coastwise arrivals. Regular lines of commodious packets keep up a connexion with the principal Atlantic ports of Europe and America ; 20 ships of the finest class constitute the Liverpool line, one sailing every week from each port ; the London line consists of 12 similar vessels, sailing once every ten days ; and the Havre line of 15, sailing weekly. There are also lines to Belfast in Ireland, Greenock, Carthagena in New Grenada, Vera Cruz in Mexico, Havana, and all the principal ports in the United States. Several large steam-packets also ply regularly between New York and Bristol, and other British ports.

The population, including the suburbs, exceeds 300,000 ; at different periods it was as follows : —

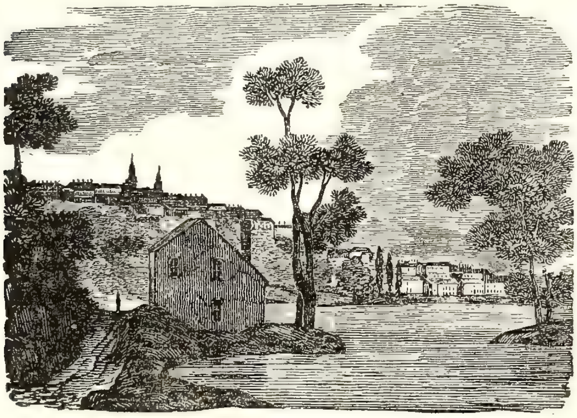
1790,	33,131	1830,	202,589
1810,	96,373	1835,	270,089
1820,	124,706		

The island of Manhattan, on which New York stands, is 13⅓ miles long and from 1 to 3 miles broad. The strait which separates it from Long Island is narrow. On the opposite side of the island, the Hudson offers a very wide channel, but all the large shipping lies at the wharves on the east side ; and the immense forest of masts which opens upon the view as the spectator enters the East River from Long Island Sound, gives some adequate idea of the vast commerce of the city. The neighborhood presents many interesting objects and much fine scenery. The Long Island shore is adorned with handsome villas and farm-houses. The Jersey shore is deficient in that picturesque variety of hill and dale, which is the charm of New England scenery, but affords many pleasant sites.

The municipal government of New York is vested in a Mayor and Common Council, consisting of two chambers, the Board of Aldermen and the Board of Assistant Aldermen, chosen annually by the citizens. The Dutch had a factory on the present site of New York as early as 1612, and about ten years later they formed a permanent settlement here, which acquired the name of New Amsterdam, and afterwards took the name of New York, when it passed into the hands of the Duke of York, in 1664. In 1765, New York was the seat of a continental congress, and in 1776 it was occupied by the British forces, who retained possession until November 25, 1783. The number of inhabitants had been diminished by this hostile occupancy, and many of the public buildings were much injured, but many of the citizens returned soon after the evacuation of the town by the enemy. In 1785, the first Congress after the peace met here, and in 1789 the first Congress under the new constitution assembled, and the inauguration of the first President took place in New York. The great fire of December 16, 1835, destroyed 430 buildings, mostly warehouses, and property to the value of about $18,000,000.

On Long Island, opposite to New York, stands the city of *Brooklyn*, a suburb of the great emporium, in whose prosperity and growth it has shared. It is pleasantly situated on a rising ground, which affords many fine prospects of the river and bay, and the deep water close along shore enables large ships to lie at the quays. Nine steamboats at four ferries keep up a cheap and constant communication with New York, and a railroad runs eastwards through the centre of the island to Hicksville, 27 miles. The population is about 25,000, and there are here a handsome city hall, 17 churches and meetinghouses, a lyceum, banks, insurance offices, &c. Among the manufacturing and mechanical establishments are a cotton mill with 5,700 spindles, 9 distilleries, 9 ropewalks, glass-works, iron-works, &c., which employ many of the inhabitants. On Wallabout or Waalboght Bay is a United States navy-yard, covering 40 acres, and comprising building-slips, magazines, the necessary store-houses and ship-houses, a naval hospital, &c. The British prison-ships, in which so many American prisoners perished, were stationed here during the revolutionary war. The success of the British arms on Brooklyn Heights, August 27, 1776, gave the enemy possession of the city of New York. To the northeast, facing the eastern side of New York, is *Williamsburgh*, with a population of 3,000 souls. To the south, are some small fishing villages ; and the low, sandy shores form fine beaches, which are much frequented for sea air and bathing. Coney Is., Bath, and Rockaway Beach are the most noted resorts.

Albany is the seat of government of New York, and in point of wealth, population, trade, and resources, is the second city in the State. It is situated on the west bank of the Hudson, 145 miles above New York, near the head of tide water. It was settled by the Dutch, in 1612, and is one of the oldest settlements in the United States. The first appearance of this city is not prepossessing to a stranger, but there is much taste displayed in the construction of the buildings, both public and private ; it is interesting for its busy commerce, which is aided by the junction of the Erie canal with the Hudson at this place. The capitol makes a fine appearance from a distance, being situated at the head of State street, which rises in a straight course from the river to the brow of a hill 220 feet ; this is a fine stone edifice 115 feet in length, 90 in width, and 50 feet high ; in the front is an Ionic portico, with columns 33 feet in height. The public square, adjoining the capitol, is adorned with beautiful walks and avenues. The City Hall is of white marble. The Academy, one of the handsomest buildings in the city, is built of stone, three stories high, and 90 feet in front. The State Hall, the Albany, Farmer's, and Mechanic's Banks, and the Museum, are also handsome edifices. The collection of the latter, is one of the best in the United States. Albany is a place of great trade, and during the session of the legislature it is much crowded with strangers. The basin, where the canal joins the Hudson, is formed by an artificial pier 80 feet in width and 4,300 feet long ; it is connected with the shore by drawbridges, and covered with stores, in which immense quantities of lumber and merchandise are deposited ; the basin contains a surface of 32 acres. The neighborhood of Albany is pleasant, and many beautiful and thriving villages are within a short distance. This city has a library of 8,000 volumes, and a population of 30,000. About 10,000 boats annually arrive and depart.



View of Albany.

West Point, the site of old Fort Putnam, and at present the seat of the Military Academy, was the scene of the treacherous plots of Benedict Arnold, who, being in command of the American post here, agreed to surrender the fortress and the person of Washington into the hands of the British ; the traitor escaped on the detection of the plot, but Major André, the British officer sent to confer with him, was seized and hanged as a spy.

Burial-place of André, at Tappan.

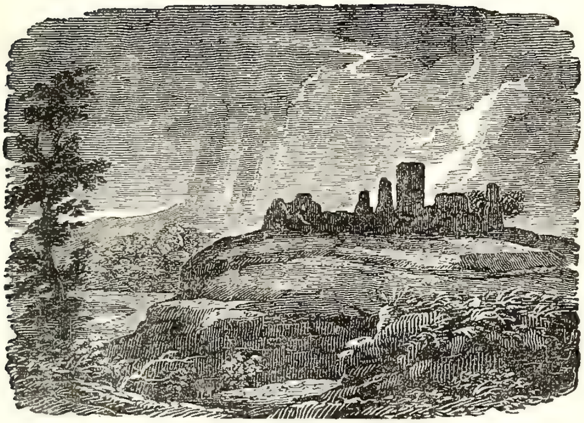
Troy, on the opposite bank of the Hudson, 6 miles above Albany, is beautifully situated and regularly built on a plain between a range of hills and the shore. The houses are chiefly of brick; the streets are kept remarkably clean, and are shaded by rows of trees on each side. Among the buildings may be noticed the Episcopal church, an elegant and tasteful Gothic structure of stone. Troy is the capital of Rensselaer county, and has a population of 20,000. The trade and manufactures are extensive. Among the factories are cotton and paper mills, iron and brass founderies, tanneries and breweries, &c., and there is an arsenal of the United States in the village of West Troy.

The city of *Hudson*, on the east side of the river, 27 miles below Albany, stands on a plain rising from the river, where the banks are 50 or 60 feet in height; this plain terminates on the east at the foot of an elevation which rises several hundred feet, overlooking the river and country for many miles round. Hudson is one of the most important places on the river, and is at present increasing in business and wealth; it is regularly built, with streets at right angles. From a beautiful promenade in the upper part of the town, a delightful prospect is presented of the river and the Catskill Mountains; the opposite bank of the Hudson is charmingly diversified with villages, farms, and country seats. Population, 6,000.

Poughkeepsie, on the east bank of the Hudson, 75 miles above New York, stands half a mile from the river, and is a pleasant town, laid out in the form of a cross. The buildings and grounds display much elegance and taste. The shore is bold and rocky, but there are good landing-places for steamboats. There are two fine hotels in the town, and it is a place of considerable trade. Population, 6,300. Both Poughkeepsie and the city of Hudson have several ships in the whale fishery. *Newburgh*, on the west side, 84 miles below Albany, makes a fine appearance from its situation on the slope of a hill close to the river. Many of its houses are handsome. Population, 5,000. *Lansingburg*, three miles from Troy, is principally built on a single street parallel with the river. A high hill rises abruptly behind the town, on which is seen the celebrated diamond rock, emitting in the rays of the sun a brilliant lustre. This town has a bank, five churches, and an academy. Population, 3,000.

Catskill, on the creek, and near the mountains of that name, is a thriving village, and is increasing by the resort thither of travelers and people of fashion, who go to enjoy the sublime mountain scenery of the neighborhood. Population, 2,500. *Schenectady*, 15 miles from Albany, on the Mohawk, is a town of considerable antiquity, and was burnt by the French and Indians in 1690. Before the settlement of the country by the Europeans, this place was the head-quarters of the powerful tribe of the Mohawks. Union College is situated here; and at the west end of the town, a handsome bridge, 997 feet in length, crosses the river. Population, 6,300. *Saratoga* and *Ballston* are villages of about 2,000 inhabitants each, but thronged in summer with crowds of fashionable visiters and invalids, who deem the mineral waters equally efficacious in curing disease and ennui.

Plattsburgh, on Lake Champlain, is a place of some trade, and memorable as a military post, and the scene of a victory over the British fleet and army, in September, 1814. A monument to the British naval commander, who fell in the battle, stands in the churchyard of Plattsburgh. Population, 2,000. *Ticonderoga*, a spot famous in the early wars of this country, is on Lake Champlain, at the outlet of Lake George. The old fortress, now in ruins, stands on a lofty point projecting into the lake. The stone walls which remain, show it to have been a place of great strength. A subterraneous passage may still be seen, leading from the lake to the fortress; through this, the Americans under Colonel Allen entered, and took the place by surprise, in 1775. The old French lines in the neighborhood are still discernible,



Ruins of Fort Ticonderoga.

as are also the remains of other fortifications of the British and Americans, upon the eminences in the vicinity. The town of Ticonderoga contains 2,000 inhabitants, and a mine of iron. *Sackett's Harbor* became during the late war an important naval station ; it contains an extensive range of stone barracks, and other objects of military importance. Population, 2,000.

The village of *Niskayuna*, a few miles from Albany, deserves notice as the residence of the Shakers, a sect of whom we have already given some account. This village exhibits a striking spectacle of neatness and beauty, standing on a beautiful level, and laid out with perfect regularity. The village embraces about 2,000 acres, and is divided into four farms. The fields are marked by fences in right lines, and built of the most substantial materials. Everything displays the utmost order, neatness, and thrift. The people are about 300 in number, and cultivate garden stuffs, seeds, &c., for sale ; and the wares of various sorts which they manufacture, are remarkable for their finished and workmanlike execution. They dress in the usual Quaker drab. Their association is based upon a perfect community of property.

The preceding towns lie in the eastern part of the State. We come now to the multitude of towns, which the more recent settlement of the western parts, and the opening of the great canal, have caused to spring up in the wilderness, as if by enchantment. The city of *Utica*, on the south bank of the Mohawk, 94 miles west of Albany, occupies the site of Old Fort Schuyler, where a garrison was kept before the Revolution, but as a town, it is little more than 30 years old. It has risen with astonishing rapidity, and now contains 10,000 inhabitants, and numerous literary, benevolent, and religious institutions. It is one of the most important of the western towns, and is situated at the junction of the river, the great canal, and the Chenango canal. The great western line of railroad, now (1840) completed from Albany to Auburn, also passes through the city. It is regularly built, the streets are broad, straight, and commodious, and the buildings generally handsome ; among them are 20 churches and a State lunatic asylum. The lands around are well cultivated, and exhibit a succession of beautiful farms and country seats. Its trade by the numerous avenues above mentioned, is extensive, and its manufactures, already important in value, and comprising iron and brass, leather, machinery, &c., are rapidly increasing. The thriving village of *Rome* stands at the junction of the Erie Canal with the Mohawk and the Black River Canal. Population, 2,000. The site is interesting, as that of old Fort Stanwix, noted in the old French wars, and of Fort Schuyler, during the Revolution. Further on, we come to *Syracuse*, a large and flourishing village, at the junction of the Oswego and Erie canals, chiefly remarkable for its great salt works. Population, 5,000 ; or, including the village of *Salina*, which is becoming merged into it, by the rapid growth of the two places, 7,000.

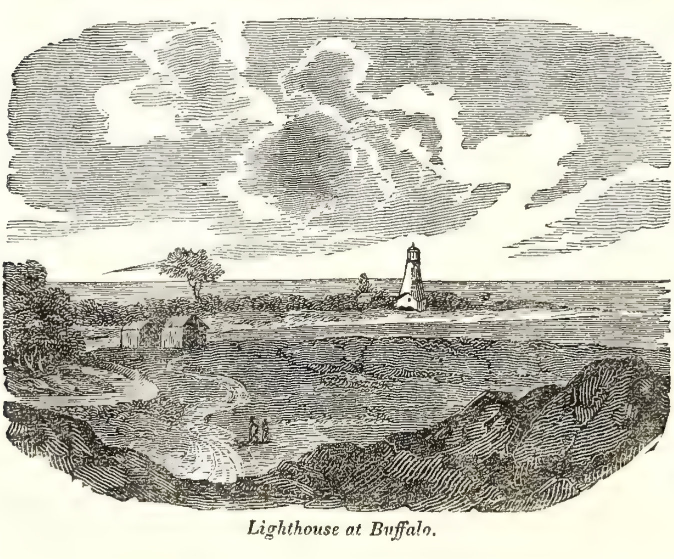
A little further west, is *Auburn*, on the outlet of Lake Owasco, which furnishes numerous mill-seats, already partially occupied by the busy wheels of mechanics. Here is also a State Prison with 600 cells. Population, 5,000. *Seneca Falls*, on the outlet of Seneca Lake, is one of the most thriving villages in the State, and has about 3,500 inhabitants. At the southern extremity of Cayuga Lake, is the picturesque and pleasant village of *Ithaca*, connected with the Susquehanna by a railroad ; its trade and mechanical industry are in a prosperous condition, and the population is 5,000. In the same region is *Elmira*, on the Tioga, but connected with lake Seneca, and thus with the great artery of the State, by a canal. Population, 2,500. North of the Erie canal and the junction of the Oswego branch with Lake Ontario, stands *Oswego*, the most important town on the American shore of the lake. It has a commodious artificial harbor formed by long piers running out into the lake, and the river affords numerous mill-seats. Population 5,000. *Geneva*, an elegant village, occupies a fine situation upon Seneca Lake, and extends a mile along its western bank, affording a most enchanting view of that beautiful sheet of water. The houses are remarkably neat and handsome. Among the public buildings are a college, an academy, 4 churches, and a bank. Population, 3,000. A constant breeze from the lake, and an uncommon richness in the scenery of the shores, render this neighborhood a delightful residence in summer. *Canandaigua* is 15 miles from Geneva, near the outlet of Canandaigua lake. The principal street is two miles in length, running along the ridge of a hill, and handsomely planted with trees. A square in the centre of the village contains a court-house ; the Episcopal church in the main street is one of the most elegant buildings in the State. In the neighborhood are numbers of delightful villas and beautiful gardens and orchards. This village is a place of considerable trade, and steamboats ply upon the lake here, as well as upon that of Seneca. Population, 2,000.

The city of *Rochester*, on the Genesee River, is a place of great trade and opulence, and of astonishingly rapid growth. It was founded in 1812, and is the fourth town in the State in point of numbers ; it is one of the emporiums of the western parts. It stands upon the great canal, 7 miles from Lake Ontario, with a ship navigation by way of Genesee River to within two miles of the town, thus having a water communication with New York, Quebec, and the great lakes. A railroad to Attica, 50 miles in length, attests the enterprise and wealth of the city ; the streets are spacious and well laid out, and the buildings are neat, and some of them elegant. Within the limits of the city are 22 large flour-mills, built of stone, which grind 600,000 barrels of flour annually. Some of these mills are on a scale of magnitude not equalled elsewhere in the world. One of them covers more than 4 acres, and all of them are considered unrivalled in the perfection of their machinery. Here are also cotton and woolen manufactories, saw-mills which turn out 9,000,000 feet of lumber in a year, machine-shops, and other mills. The Genesee falls are in the northern part of the city, and the water power which the river affords here, is immense.

There are three bridges across the Genesee at this place ; the canal aqueduct deserves particular notice. The canal strikes the river in the south part of Rochester, and after following the eastern bank for half a mile, crosses the river in the centre of the town in an aqueduct built upon 11 arches of hewn stone, 804 feet in length ; the structure is no less worthy of admiration for its strength, than its architectural beauty. From the observatory at the summit of the arcade, may be seen in a clear day the waters of Lake Ontario, like a strip of blue cloud on the verge of the horizon. Population of Rochester, 18,000.

Lockport is a flourishing place on the canal, 65 miles beyond Rochester. It stands on the Mountain Ridge, and the canal here rises 60 feet by 5 locks, which exhibit the most stupendous and imposing works in its whole course. Above the locks, the canal flows in a bed cut for three miles out of the solid rock, 20 feet in depth. In 1821, there were but two houses at this place ; it is now an important town, with numerous manufactories, a flourishing trade, and 5,000 inhabitants.

Buffalo is a beautiful and thriving city at the junction of the canal with Lake Erie. It stands upon a long hill, rising with a gentle acclivity from the shore. The streets are wide and regular, and there are three handsome public squares. The harbor of Buffalo is furnished with a lighthouse at the entrance, and has been much improved by art ; a pier 80 rods in width now prevents the sand of the lake from barring up its mouth. Two small rivers unite their waters in the harbor, and afford great convenience for landing and shipping goods, while a number of basins and lateral canals communicating with the great canal, afford every facility for the commencement of the long course of inland navigation. Buffalo is the grand emporium



Lighthouse at Buffalo.

of the lake commerce, and its harbor is as thronged with steamboats and all manner of water craft, as its streets are with travelers, emigrants, and men of business. It is one of the most active and bustling places in the country, and is rapidly growing in importance. In 1820 its population was 2,100, at present it is 20,000, inclusive of Black Rock, which is connected with it by a railroad, and contains the great western basin of the Erie Canal. The number of arrivals of lake vessels, in a single year, has amounted to 1,800, and upwards of 5,000 boats have cleared on the canal in the same period. There is no other important town on the lake, but the harbors of Dunkirk and Portland have been improved by artificial works, and are beginning to be seats of trade.

5. *Agriculture.* Three fourths of the inhabitants of New York are engaged in agriculture, but not more than one fourth of the land is under cultivation. In 1810, the State government made provision for the formation of County Societies, for the promotion of agriculture and household manufactures. A general board of Agriculture was organized, consisting of delegates from the county societies. This board have published various memoirs relating to husbandry, and the county societies expend annually a large amount in premiums. Wheat is the most important article of culture. Maize, rye, barley, oats, flax, hemp, &c. also receive attention.

The great wheat district of the State commences in the valley of the Mohawk above the primitive spur at Little Falls. This district, comprehending the central portions of Oneida County, extends westward to the lakes, and is bounded northward by the north ridge of the valley and by Lake Ontario, and southward by a line verging southwest from Utica to the mouth of the Cattaraugus Creek at Lake Erie. This is the garden of the State, including the rich Seneca Vale and the far-famed Genesee Country. Portions of this district are sandy, and in others the rock rises too near the surface, whilst others are not abundantly watered ; but taken as a whole it is not surpassed by any district of equal extent in the United States. Here artificial manures are rarely used, and indeed rarely needed. In the newly cleared lands, the richness of the mould and of the sub-soil is all that the farmer requires ; in tracts long cleared, deep ploughing, blending the mould and the soil, preserves the former, and turns up the latter to disintegrate, and thus to yield its calcareous matter.

Amount and Value of Improved Lands and Live Stock in 1825 *and* 1835.

	1825.		1835.	
	Number.	Value.	Number.	Value.
Acres of Improved Land,	7,160,967	$ 179,024,175	9,655,426	$ 241,385,650
Neat Cattle,	1,513,421	15,134,210	1,885,771	18,857,710
Horses,	349,628	17,481,400	524,895	26,244,750
Sheep,	3,496,539	5,244,808	4,261,765	6,392,647
Hogs,	1,467,573	4,403,719	1,554,358	4,663,074
Totals,		$ 221,288,312		$ 297,543,831

6. *Commerce.* The admirable situation of this State for commerce may be perceived by casting the eye on the map. The internal trade is assisted by the great lakes which form its northern boundary, and by the canals which open a communication with them through the centre of the country. The commerce of New York is, therefore, on a great scale, as, beside supplying her own wants from abroad, and exporting her surplus produce, she imports a large share of the foreign articles consumed in most of the Atlantic and Western States, and her great commercial emporium is the outlet of much of their surplus produce. The value of imports constitutes about three fifths of that of the whole country, and her foreign exports are about one fourth of the whole exports ; the former amounts to about 80,000,000, the latter to 25,000,000 annually ; the shipping exceeds 450,000 tons. The internal river and canal trade, and the coasting trade, both with the north and the south, are of much greater value. The lake commerce on Lakes Champlain, Ontario, and Erie, with Montreal and Quebec, Vermont, Upper Canada, Michigan, and the west in general, is very extensive, and rapidly increasing. The number of vessels on Lake Erie, which in 1817 was 25, now exceeds 400, including about 40 steamers and several ships.

7. *Manufactures.* There are numerous incorporated manufacturing companies in this State, and their condition in general, is highly prosperous. Their establishments are distributed throughout the whole territory, and are chiefly occupied in the manufacture of woolen and cot-

ton cloths, iron, salt, paper, leather, beer, and glass. There are also great numbers of mechanics' shops, in which the numerous trades necessary for the supply of agricultural and mechanical implements, machinery, furniture, clothing, &c., not only for the State, but for the west, are carried on. The whole annual value of the products of this branch of industry may be estimated at about 80,000,000 dollars. Above 25,000,000 yards of cottons, and 7,000,000 of woolens are made in the factories, beside which about 9,000,000 of cottons, linens, and woolens are made in families.

Products of some Manufacturing Establishments.

	Number.	Value of Products.		Number.	Value of Products.
Grist Mills, -	2,264	$ 20,000,000	Iron Works, - -	170	$4,350,000
Saw Mills, - -	5,200	7,000,000	Distilleries, - -	1,129	3,000,000
Fulling Mills, -	1,220	2,900,000	Rope Works, - -		1,000,000
Carding Machines, -	1,600	2,800,000	Dyeing and Print Works,		2,500,000
Cotton Factories, -	76	3,000,000	Tanneries, - -		5,600,000
Woolen “ -	220	2,500,000	Breweries, - -		1,400,000

Salt springs abound in the western part of the State, and great quantities of salt are manufactured in different places. The most noted of the salt works are those of Salina, Syracuse, and Geddes, in the township of Salina, near Onondaga Lake ; here the salt water is obtained by sinking wells and boring ; it is raised by large metallic pumps, moved by the surplus water of the Erie Canal, or by steam, conveyed into reservoirs, and passed through pipes to the manufactories. The works principally used in the manufactory of the salt, are denominated Blocks, Solar works, and Steam works. The Blocks are constructed with boilers containing from 80 to 120 gallons each, and placed in masonry in two parallel lines, having from 8 to 20 in each line. In the boiling, a portion of the impurities, sulphate and carbonate of lime stained with iron, is deposited in ladles, and taken out, and the evaporation of the brine is continued till but a small quantity remains, when the salt is taken out into baskets and drained. The inner surface of the boilers soon becomes incrusted with a hard compound of the earthy substances and salt, which require frequent removal to prevent overheating and cracking the metal. Next in importance are the works adjoining the Erie Canal for evaporation by solar heat ; these consist of wooden vats, resting upon small posts driven into the ground ; the width of the vats is 18½ feet ; their depth from 6 to 15 inches, and they are from 80 to 640 feet long ; they have roofs in divisions of 16 feet each, sustained by rollers which travel on level supporters, and are moved on and off by the strength of one man. The water from the reservoirs is received first into the deepest vats, in which is deposited much of the iron or coloring matter, which appears in the form of a pellicle, as soon as the temperature, which, at the wells is 50°, is increased.

From these it is passed through pipes into shallower vats, where it remains till, by the evaporation and concentration of the brine, and the precipitation of sulphate and carbonate of lime, it is sufficiently depurated for the crystalization of the salt, which then begins to appear on the surface. The brine, leaving behind the substances that have been separated, is again drawn off into vats on a level still lower, which are kept clean, and in which the salt is made with greater or less rapidity according to the altitude of the sun, the clearness of the atmosphere, and the strength of the wind. The salt is shoveled into tubs, drained for a few minutes, and, without further drying, is conveyed in carts to the storehouses. The measured bushel will weigh from 74 to 85 pounds, the product of the slowest evaporation being the heaviest. When the weather has been clear and calm, and the salt water free from agitation, the surface has often been heated to 122°, while that at the bottom of the vat was 106°, and by the hydrometer was ascertained to be specifically lighter than the upper portions. The *mother water*, remaining after the extraction of the salt, is a solution of the muriates of lime and magnesia, possessing a pungent taste unlike the bitter in that from the sea, and containing very little magnesia. The solar establishments at Syracuse occupy 120 acres ; the aggregate surface of the vats is 1,500,000 square feet. The steam works are similar in their construction to the Blocks ; the boilers are covered, to save the steam produced in boiling the water to saturation ; by condensation, in its passage through metalic pipes immersed in the brine in deep wooden vats, the heat is applied a second time to the crystalizing of the salt. The Salina salt is beautifully white, and fine grained ; the whole quantity made yearly exceeds 2,000,000 bushels. It is commonly packed for sale in barrels of five bushels, and is inspected and branded before it can be removed.

8. *Indians.* In this State are the remains of the celebrated confederacy of the *Six Nations*, and the remnants of a few other tribes, amounting in all to 5,000. The *Five Nations* were the aboriginal proprietors of the northern and western part of the State, and the territory beyond. Their confederacy has long since been broken up. The Mohawks, who were the leading tribe, emigrated to Canada in 1776. The Cayugas followed the Mohawks to Canada in 1796, leaving about 40 of their number, who are now mingled with the Senecas and other tribes. The Tuscaroras came to this State from North Carolina in 1708, and formed the Sixth nation; before that date, the New York Indians were called the Five Nations. The Moheakunnuks came from Stockbridge in the western part of Massachusetts. The Seneca and Oneida tribes make up the number. They dwell upon lands of their own in the western part of New York, called Reservations, comprising in all 246,675 acres. They have some good houses and farms, and maintain schools and missionaries. Many of them, however, are indolent and intemperate. Parties of them may often be seen in the streets of Buffalo, and other towns, sometimes wearing blankets and sometimes dressed like the poorer classes of whites.

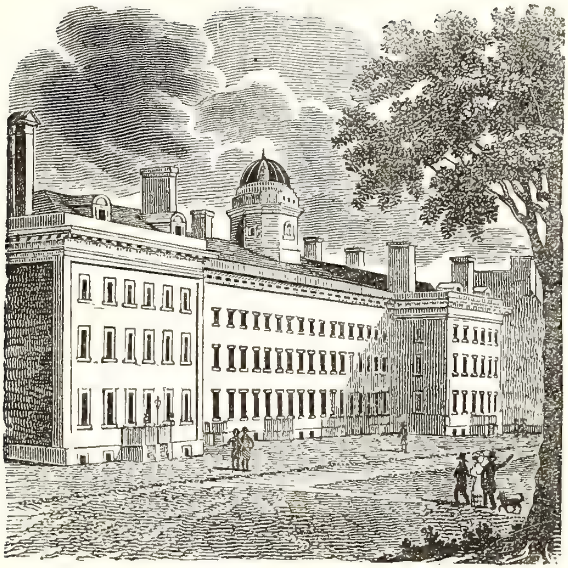
9. *Antiquities.* In the western parts of New York are numerous remains of ancient Indian fortifications and towns. Some of these inclose a space of 500 acres. They consist of circular and angular walls of earth, sometimes skirted by ditches, and from the appearance of the trees which have overgrown them are evidently of great antiquity. Some are supposed to be above 1000 years old. The fortifications are often accompanied with funeral piles, in which the bones are still discernible. Many are seated on spots which appear to have been the beds of rivers, before the great lakes shifted their borders.

10. *Religion.* The Presbyterians and Congregationalists number 564 ministers, and 86,000 communicants; the Baptists, 483 ministers, and 67,183 communicants; the Methodists, 591 ministers, and 30,700 communicants; the Dutch Reformed, 142 ministers, and 15,800 communicants, and the Protestant Episcopal Church, 207 ministers, and about 10,000 communicants. The Associated Reformed Church has 30 ministers; the Lutherans 27; the Roman Catholic Church 32; the Universalists 25; the Unitarians 8; and the New Jerusalem Church 5. The Christians have also several ministers, the Friends and Moravians a number of societies; the Shakers 3 communities, and the Jews 3 synagogues.

11. *Government.* The present constitution was adopted in 1821. The legislature consists of an Assembly and a Senate. The Assembly has 128 members, and the Senate 32. The members of the Assembly are elected annually, and one fourth of the Senate is renewed each year. The Executive consists of a Governor and Lieutenant-Governor, chosen every two years. These officers are elected by the highest number of votes given, although the number may be less than a majority. Universal suffrage is allowed. The legislature meets annually in January. New York sends 40 members to Congress. The annual expenses of the State are about 300,000 dollars.

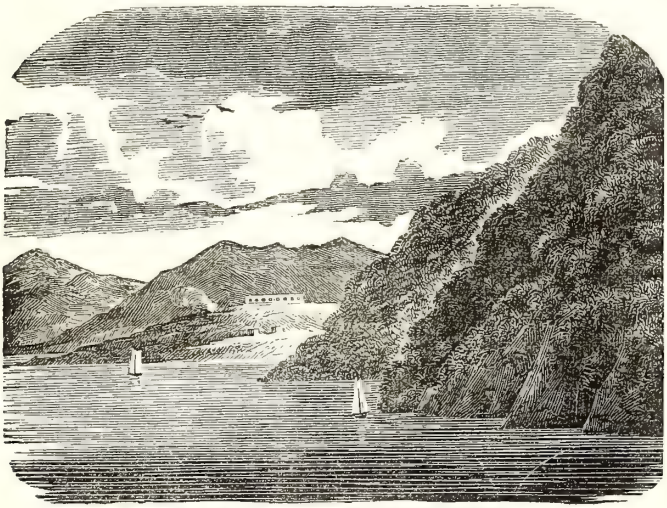
12. *Education.* Very ample provision is made for popular education in this State. The State has a common-school fund of 2,000,000 dollars, the proceeds of which are distributed among the towns, each town being required to raise by tax a sum equal to that which it receives from the fund; the whole of these two sums is expended solely for the payment of teachers' wages, in addition to which the school-districts erect and support the school-houses, and are chargeable with other incidental expenses. The number of school-districts in the State is 10,200, comprising 530,000 pupils; the sum of 313,377 dollars was distributed among these districts in 1835, under the name of public money, and 425,643 dollars was raised by the school-districts, making a total of 739,020 dollars paid for teachers' wages. Provision has also been made for the education of teachers, by the establishment of a department for that purpose, with suitable books and apparatus, in one of the academies of each of the eight senatorial districts.

There are upwards of 200 academies, gymnasiums, or high-schools in the State, of which 60 are for girls; 63 of these institutions are subject to the visitations of the Regents of the University, and were attended by 6,056 pupils in 1835; there is a literature fund belonging to the State, from the proceeds of which 12,000 dollars were distributed among them in that year. There are five colleges, and one university in the State, namely, the University of the City of New York, established at New York in 1832; Columbia College, at New-York, founded in



Columbia College.

1757, and, till the Revolution, called King's College. It has a President and 8 professors. The library contains 10,000 volumes. This institution is well endowed. The college building is of stone, stuccoed, and contains lodgings for the professors, with a chapel, lecture rooms, &c. *Union College*, at Schenectady, was incorporated in 1794. It has a President and 10 professors. The library has 6,000 volumes. *Hamilton College*, at Clinton, was incorporated in 1812 ; it has a President and 6 professors. The library contains 6,000 volumes. *Geneva College* was founded in 1825. It has a President and 12 teachers. The library contains 1,500 volumes. There are also Medical Colleges at New York and Fairfield. The Presbyterians have a Theological Seminary at Auburn, the Baptists at Hamilton, the Episcopalians and Presbyterians at New York, the Lutherans at Hartwich, and the Reformed at Newburgh. A corporation, under the name of the Regents of the University, have the general care of literature in the State, and are instructed to visit colleges, academies, and schools, and superintend the system of education.



United States Military Academy, West Point.

The *United States Military Academy* is at West Point, on the Hudson. It was established by Congress in 1802, for the instruction of young men destined for the army. The number of cadets is limited to 250, and in choosing among the applicants, the sons of revolutionary officers are allowed the first claim, and the children of the deceased officers of the last war, the second. The age of the pupils on admission must be between 14 and 22. The professors and instructers are 30 in number ; each of the cadets cost the government 336 dollars annually. They are required to encamp 6 or 8 weeks during the year. The course of study is completed in 4 years, and includes French, drawing, natural and experimental philosophy, chemistry, mineralogy, geography, history, ethics, national law, mathematics, and the whole science of strategy, tactics, artillery, and engineering. The annual expense of the institution is 115,000 dollars. There are 5 large stone buildings, and 6 of brick. The site they occupy is very beautiful and commanding, being a level 188 feet above the river. Close to the shore stands a white marble monument, bearing the name of Kosciusko. In another part is an obelisk to the memory of Colonel Wood, one of the pupils who fell at Fort Erie. On the bank of the river is a spot called Kosciusko's Garden, where the Polish hero was accustomed to pass his time in cultivating the ground.

13. *History*. New York was first explored by Henry Hudson, an Englishman in the service of the Dutch East India Company, who in 1609 sailed up the harbor of New York and the river to which his name was given. Settlements were made by the Dutch at Albany, first

named Fort Orange, and Manhattan Island in 1612. The English claimed a prior right to the country, and gave the Dutch settlers some trouble ; but the claims of the latter were afterwards acquiesced in, and the colony, under the title of the New Netherlands, soon began to flourish. The territory, as originally claimed by the Dutch, extended from Fort Goed Hoop on the Connecticut to Fort Nassau on the Delaware. The border feuds and contests with the Swedes on the one extremity, and the New Englanders on the other, have been made more familiar to us by the pen of the humorist than by the labors of the historian. In 1650, Long Island was divided between the Dutch and English, but the former still retained half of the present State of Connecticut. Soon after, however, Charles the Second set up anew the claim of the English to the whole country, and made a grant of it to his brother the Duke of York and Albany. England and Holland were then at peace, but a fleet was immediately despatched to take possession. The Dutch were unable to offer resistance, and the whole province peaceably surrendered in 1664. Colonel Nichols, the commander of the expedition, assumed the government ; the name of the colony was changed to New York, the capital having been originally called New Amsterdam.

On the breaking out of war between the Dutch and English in 1673, New York fell into the hands of the original settlers, but was restored to the English the year afterwards, at the conclusion of peace. The Duke of York obtained a new patent, and appointed Andros governor of the colony. No representative power was enjoyed by the people till 1683, when the first Assembly met, and, by a declaration of the governor, were invested with the sole power of enacting laws and levying taxes. When the Duke of York became King, under the title of James the Second, his Catholic bigotry and arbitrary spirit were no less objects of hatred and apprehension among the colonists than in England. When the news of the revolutionary measures against him arrived in the colony, the people rose upon the officers, seized the fort at New York, and declared for the Prince of Orange. The chief director of this movement was Jacob Leisler, who, having overthrown James's authority, took upon himself the office of governor. The people of Albany, although they acknowledged the Prince of Orange, refused to submit to Leisler, and much discord followed, but Leisler finally succeeded in establishing his authority, and confiscated the estates of his opponents. This injustice brought a bloody vengeance upon his head in the sequel. King William, being established upon the throne, appointed Colonel Slaughter governor of New York ; but Leisler, intoxicated with power and success, refused, when the new Governor arrived, to surrender the government into his hands. Slaughter caused him to be apprehended, and put him, with many of his adherents, upon trial, for resisting the royal authority ; Leisler, and another named Millborne, who had been active in subduing the malecontents of Albany, were condemned to death. It appears that the Governor designed to pardon them after conviction, on account of the services which they had rendered the country, but the enemies of the unfortunate criminals used every exertion to induce the Governor to sign their death-warrant ; this he constantly refused. Not meeting with success by open persuasion, they resorted to a detestable stratagem ; the Governor was invited to a feast, and, when intoxicated, the warrant was produced and he signed it ; when he recovered his reason, the prisoners were already executed.

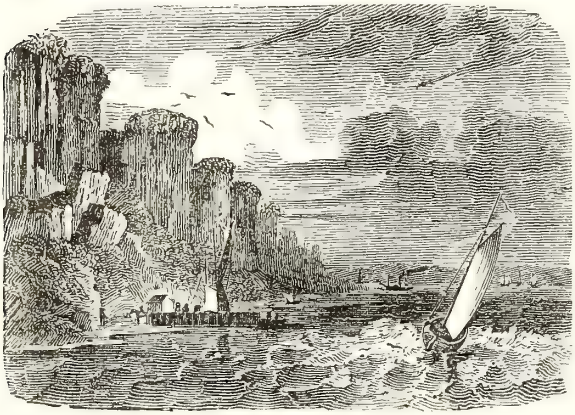
The political history of New York, subsequently to the period of the revolution in England in 1688, is not remarkable ; many struggles were elicited between the representative body and the governors by their conflicting pretensions respecting the finances ; but these led to no important results. In the year 1741, New York was thrown into great alarm by a supposed plot of the negroes to burn the city ; large numbers of them were tried and executed or banished, on very little evidence, so great was the panic that fell upon the inhabitants. When their fears had subsided, it was found, that the "negro plot" was hardly more established by proof than the celebrated popish plot in England. During the wars with the French, the northern parts of the State were the scenes of many bloody contests with the French of Canada and the savages. The conquest of Canada, by the English, in 1759, secured the tranquillity of the interior till the breaking out of the revolutionary war. In the latter struggle, New York was the theatre of some of the most important and memorable campaigns.

CHAPTER XIII. NEW JERSEY.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* New Jersey is bounded N. by New York ; E. by New York and the ocean ; S. by Delaware Bay, and W. by the river Delaware, separating it from Pennsylvania. It lies between 39° and 41° 24′ N. latitude ; and 74° and 75° 29′ W. longitude. Its extreme length from north to south is 163 miles, and its average breadth about 50. It contains 7,300 square miles.

2. *Mountains.* No part of this State is mountainous except the north, where two of the southern branches of the Appalachian chain cross the State. These are called the *Kittatinny Ridge* and *South Mountain.* One of these eminences, toward the western part of the State, called *Schooley's Mountain*, is much frequented by travelers in summer. It affords agreeable scenery, and has a hotel near its summit. There are some mineral springs in the neighborhood. Towards the middle part of the State the surface is broken, but there are no very high eminences. A hilly ridge rises gradually from Bergen Point on the Hudson, and runs north, with little interruption, to the Highlands in New York. It has a width generally of 2½ miles, with a summit of table-land. From its western brow there is a gradual descent to the alluvial valley of the Hackinsack and Passaic. On the eastern side it is uniformly either steep or precipitous. At Weehawken, 4 miles north of the city of Jersey, the mountain presents a perpendicular wall of about 200 feet elevation above the Hudson, and exhibits a fine prospect of the harbor of New York and the surrounding country. This mural precipice extends 20 miles along the shore of the river, and bears the name of the Palisadoes. Its summit has a surface of slightly undulating table-land, gradually rising toward the north, and mostly occupied by forests. The western side is of gradual descent, and covered with farms. Among the forests wild animals, such as the raccoon, fox, wildcat, opossum, rabbit, and squirrel, roam almost undisturbed, and rattlesnakes are sometimes seen. The highest point of the Palisado range does not exceed 550 feet elevation.


Palisado Range.

3. *Rivers.* The *Hudson* and *Delaware* wash the eastern and western limits of the State, but these will be found described elsewhere. The *Raritan* rises in the western part of New Jersey, and flows easterly into the sea below Staten Island. New Brunswick stands upon this river, and Amboy is near its mouth. Vessels of 80 tons ascend to the former place, 17 miles, and the river is navigated by the steamboats which form part of the line of communication between New York and Philadelphia. The *Passaic* rises in the north and flows south into Newark Bay, which opens into New York harbor. It is navigable 10 miles for small vessels. The *Hackinsack* falls also into Newark Bay, and has a navigation of 15 miles. *Great Egg Harbor River* in the south, runs into the ocean, and is navigable by small craft 20 miles.

4. *Bays and Harbors.* Although this State has a long line of seacoast, yet it is quite deficient in good harbors. *Newark Bay* is rather a small lake communicating by long outlets with the sea. The *Raritan Bay*, between Staten Island and Sandy Hook, affords good shelter for vessels. The seacoast and the borders of *Delaware Bay* present many inlets and coves, but none frequented by large shipping. The bay or estuary of the *Delaware* lies between this State and Delaware ; it is 65 miles long and 30 broad in the widest part. Where it joins the sea it is contracted, and from Cape May to Cape Henlopen the distance is 18 miles. This bay has some shoal places, but the channels are deep and favorable to navigation.

5. *Climate.* The greater part of New Jersey lying near the sea, and being low and level, must enjoy a comparatively mild climate. The cold is less felt here than in any part of New York or Pennsylvania. Nearly the whole State lies open to the influence of the sea air.

6. *Soil.* In the northern parts, the soil is good, both for agriculture and grazing ; but the southern half of the State is a flat and sandy territory, sometimes marshy, but almost totally barren, or producing only shrub oaks and pines.

7. *Geology, Minerals.* With some inconsiderable exceptions, the whole of the great southern Plain consists of a series of horizontal deposits of clays, sand, and sandstones sometimes running into limestone, all belonging to the newer secondary or cretaceous group of geologists, and generally covered to a variable, but often considerable depth, by masses of diluvial sand and gravel. The exceptions referred to are the recent alluvial bogs or marshes, in one of which near Long Branch, an almost complete skeleton of a Mastodon was found in the natural standing posture ; and a small tertiary patch, probably a basin, on Stow Creek, in the southwestern part of Cumberland county. These tertiary beds are composed of layers of clay, containing fossil shells, chiefly Pernas, and of sand, containing oyster-shells ; the former constitute a valuable marl. The cretaceous or greensand series comprises beds of blue clay, which often contain leaves, parts of trees, lignite, amber, and other vegetable products ; a brown, coarse, ferruginous sand-stone and conglomerate crowning the tops of the low hills which are scattered over the Plain ; a yellow ferruginous sand, sometimes cemented into a soft rock and sometimes occurring as a loose sand, containing numerous casts of shells ; a yellowish fossiliferous limestone, often siliceous ; and the greensand marl-beds, consisting of beds of dark clay, of the same mingled with green sand, and of the green sand almost alone in a pulverulent state. These lower beds have acquired importance from their fertilizing properties, and are extensively used with great success by the New Jersey farmers as a manure, from which circumstance they have received the name of marl-beds. A triangular space enclosed between lines drawn pretty directly from Salem to Deal and Middletown, is designated the Marl Tract, the beds here lying near the surface, and being very profitably worked in many places. The useful minerals of this section of the State, in addition to the marl, are potter's clay, pure white sands, which have long been exported from Maurice River for glass-making, copperas and alum earth, good architectural freestone, and bog-iron ore ; the last is extensively worked, and the deposits, being derived by precipitation from the water which filters through the beds of ferruginous sand and clay, are constantly renewed after the lapse of a few years.

Northwest of the Great Plain lies a tract composed of the older secondary formation, and which, from the prevailing rock, has been designated the Red Sandstone Region. This rock-group comprises a thick series of alternating red shales, sandstones, and conglomerates, resting upon which is a coarse, variegated, calcareous conglomerate, of a heterogeneous composition, consisting of pebbles of various sizes, and from different rocks. The latter in some localities furnishes a good marble resembling the Potomac breccia, and the former yields a valuable building material in its freestones. Numerous ridges and dikes of trap-rocks traverse the strata of this formation, constituting all the hills within the sandstone district. The indications of the existence of copper ore, which early attracted attention in New Jersey, and which have, at different periods, led to mining operations, occur at the junction of the red sandstone and trap ; but the ore has not been found in a true vein or regular lode, and it appears to exist only in irregular strings and bunches.

The Highlands consist chiefly of gneiss, intersected by occasional dikes of sienite or greenstone traversing the strata, but the floor of the southern valleys is a blue limestone, and a red argillaceous conglomerate occurs in the northern section. Hematitic iron ore is found in connexion with the limestone, and magnetic ore is an abundant constituent of the gneiss rock ; the veins of the latter are of extraordinary extent and richness ; they are extensively wrought, and yield a metal of excellent quality. The rocks of the valley west of the Highlands are composed of several alternating strata of slate, argillaceous sandstones, and limestone, which, beside lime, marl, marble, freestone, and writing and roofing slates, contain zinc-ore (oxide of zinc) in great abundance, and magnetic and hematitic iron-ores. The red and gray sandstones of the Blue Mountain, and the fossiliferous limestones and calcareous sandstones west of that range, occupy the rest of the State.

9. *Face of the Country.* The southern half of the State is a level and sandy alluvion, and subsides from the higher regions into an unbroken plain. The middle section is hilly, and toward the north the surface grows more variegated, till it rises into mountain ridges.

10. *Natural Curiosities.* The Falls of the Passaic, at Paterson, are highly picturesque. The scenery around is variegated and wild. A perpendicular wall of rock rises from the side of a large basin, formed by the river. Into this basin the foaming cataract pours, from a

height of 70 feet. A road has been cut through the rock, by which the spectator may approach the spot in a favorable manner for enjoying the view.

POLITICAL GEOGRAPHY.

1. *Divisions.* New Jersey has 18 counties; Bergen, Burlington, Cape May, Cumberland, Essex, Gloucester, Hunterdon, Middlesex, Monmouth, Morris, Salem, Somerset, Sussex, Warren, Atlantic, Mercer, Passaic, and Hudson, subdivided into 120 townships.

2. *Canals.* The ***Morris Canal*** crosses the northern part of the State, from New York to the Pennsylvania coal region. It leaves the Hudson at Powles's Hook, opposite the city, and proceeds north and west crossing the Mountain Ridge, beyond which it turns southwesterly and extends along the base of the ridge to Easton on the Delaware, 100 miles. At several places are inclined planes, up which boats are drawn by machinery. The whole rise and fall is 1,675 feet. Aqueducts pass over Passaic and Pompton rivers. Twenty miles of the canal lead through narrow ravines, between high ridges of granite, abounding in valuable minerals. The ***Delaware and Raritan Canal*** extends from New Brunswick on the Raritan, to Bordentown on the Delaware, below Trenton, 43 miles in length. It is 7 feet deep, and 75 feet wide, at the surface, being designed for sea vessels.

3. *Railroads.* The *Camden and Amboy Railroad* is an important work on the great line of travel between the north and south, 61 miles in length; from South Amboy, its northern termination, steamers convey passengers to New York, through Staten Island Sound and the Kills. There is a branch of this road from Bordentown to Trenton. The *New Jersey Railroad* extends from Jersey City, on the Hudson, through Newark, Elizabethtown, and New Brunswick, to Trenton, 58 miles. The *Paterson and Hudson Railroad* branches off from the New Jersey Railroad at Bergen Hill, and runs to Paterson, 15 miles. The *Morris and Essex Railroad* extends from Newark through Orange and Chatham to Morristown, 20 miles. The *Elizabethtown and Somerville Railroad* branches off from the New Jersey Railroad, at the former place, and extends to the latter, a distance of 25 miles. The *Camden and Woodbury Railroad* is 8 miles in length.

4. *Towns.* The capital is *Trenton*, on the Delaware, 30 miles above Philadelphia. It is a place of considerable business, and contains a State-house, 2 banks, and 6 churches. The rapids upon the Delaware, at this place, form the limit of sloop and steamboat navigation. A wooden bridge across the river, 1,100 feet long and covered with a roof, is the first on the Delaware from the sea upwards. Trenton is incorporated with city privileges, and has some thriving cotton manufactures. Population, 4,000.

Burlington, on the Delaware, 12 miles below Trenton, is beautifully situated, partly on an island united to the shore by four bridges and causeways. It has many fine buildings, and makes a very handsome appearance towards the river. It is a port of entry, but has no foreign trade. Population, 2,600.

Bordentown, on the river between this place and Trenton, is chiefly remarkable as the residence of Joseph Bonaparte, whose elegant villa attracts the attention of travelers. *Princeton*, 10 miles northeast of Trenton, is a handsome village, containing the college of New Jersey. It stands on an elevated ridge, and commands a good prospect.

The city of *New Brunswick* is situated at the head of sloop navigation upon the Raritan. It contains a College, a Theological Seminary, and other public edifices, and has some commerce, chiefly in corn and flower. Population, 6,000.

Newark, on the west bank of the Passaic, 9 miles from New York, is one of the most flourishing towns in the State. The streets are regular, and in the centre of the place is a fine public square. The city has several banks, and many manufactories. The Passaic is here navigable for sloops of 80 tons, and 4 miles below the town falls into Newark Bay. Population, 20,000. The manufactures are various and extensive, although the establishments are on a small scale. A great number of coaches, shoes, (4,000,000 pair yearly,) hats, furniture, clothing, trunks, &c. are made here, the annual value of the manufactured products being about 8,000,000 dollars. *Paterson* is a large and flourishing manufacturing town, at the lower falls of the Passaic; here are 20 cotton mills, a duck factory, several woolen and paper mills, machine factories, brass and iron founderies. The town is pleasantly situated and prettily built, and contains 12,000 inhabitants.

Elizabethtown is the oldest place in New Jersey. It stands on a small creek flowing into Staten Island Sound, with a navigation for vessels of 20 or 30 tons. It is a handsome town, and surrounded by a fertile country. Population, 3,450.

Perth Amboy is situated at the bottom of a bay, where the Raritan and Staten Island Sound unite ; it has a tolerable harbor, and considerable commerce.

5. *Agriculture.* In the southern parts, owing to the barren soil, the business of cultivation is not in a very thriving state. In the northern and middle parts, considerable attention is paid to the rearing of garden stuffs, and fruit, for the markets of New York and Philadelphia. The farmers also raise wheat, rye, maize, buckwheat, pulse, potatoes, &c. These portions of the State abound in orchards ; the finest cider is made in the neighborhood of Newark. Cattle are also extensively raised for exportation.

6. *Manufactures.* Although the industry of the people is chiefly devoted to agriculture, the northeastern section contains some flourishing manufacturing towns, and various branches of manufacturing industry employ many of the inhabitants in other quarters. The following official return gives but a partial view of the extent and variety of the manufacturing establishments in 1830 ; for the mines and quarries, the potteries, the workshops for the making of hats, boots, and shoes, carriages, saddles and harness, furniture, &c. are not taken into the account.

Manufacturing Establishments in 1830.

857	runs of stone in grist mills.	45	cotton factories.
655	saw-mills.	25	woolen "
72	fulling "	6	calico print-works.
29	paper "	13	glass works.
13	rolling and slitting mills.	388	cider distilleries.
17	oil mills.	11	grain "
28	furnaces.	135	carding machines.
108	forge fires.	2,876	tan vats.

The annual value of the iron manufactures in 1830 was estimated at about 1,000,000 dollars, including 1,670 tons of pig-iron, 5,615 tons of castings, and 3,000 tons of bar-iron ; that of cottons at 2,000,000 ; of woolens at 250,000 ; of glass 500,000, but all these and other branches have been much extended since that time.

7. *Commerce.* The direct foreign commerce of New Jersey is inconsiderable in amount, most of the transactions taking place in New York and Philadelphia ; an active coasting trade is carried on from the numerous small rivers, which generally admit small sea vessels some distance into the interior ; of the actual amount of this trade we have no estimates. The shipping owned in the State in 1836 amounted to 50,513 tons, exclusive of the river and canal craft.

8. *Fisheries.* On the eastern coast, in the neighborhood of Staten Island, are abundant oyster beds, which are highly profitable to that part of the State ; but the most productive source of income is the shad fishery upon the Atlantic coast and in the Delaware, which employs a great part of the population of the southern counties. The fishery is carried on by many separate establishments, which employ laborers upon wages. Most of the fish are sold in the market of Philadelphia. When the spring floods are later than ordinary, the shad are most abundant in the bays and inlets of the seacoast.

9. *Government.* The legislature consists of a Council and House of Assembly, the members of which are chosen annually. The Council consists of one member from each county, and the Assembly, of three from each county. The Governor is chosen by the legislature annually. Voters must be resident one year, and have paid a tax. The constitution was established in 1776. New Jersey sends 6 members to Congress.

10. *Religion.* The Presbyterians have 100 churches ; the Reformed Dutch church, 40 ; the Baptists, 80 ; and the Episcopalians, 30 ministers. There are many Methodists and Quakers, and some Congregationalists.

11. *Education.* The *College of New Jeresy* or *Nassau Hall*, at Princeton, was founded in 1738. It has a President, 13 professors, and 2 tutors. The library contains 8,000 vols. There is also at the same place a *Theological Seminary* established by the Presbyterians. This last has a spacious stone building with five professors, and 120 students. *Rutgers College*, at New Brunswick, has 100 students. The State has a school fund, yielding an annual income of 22,000 dollars.

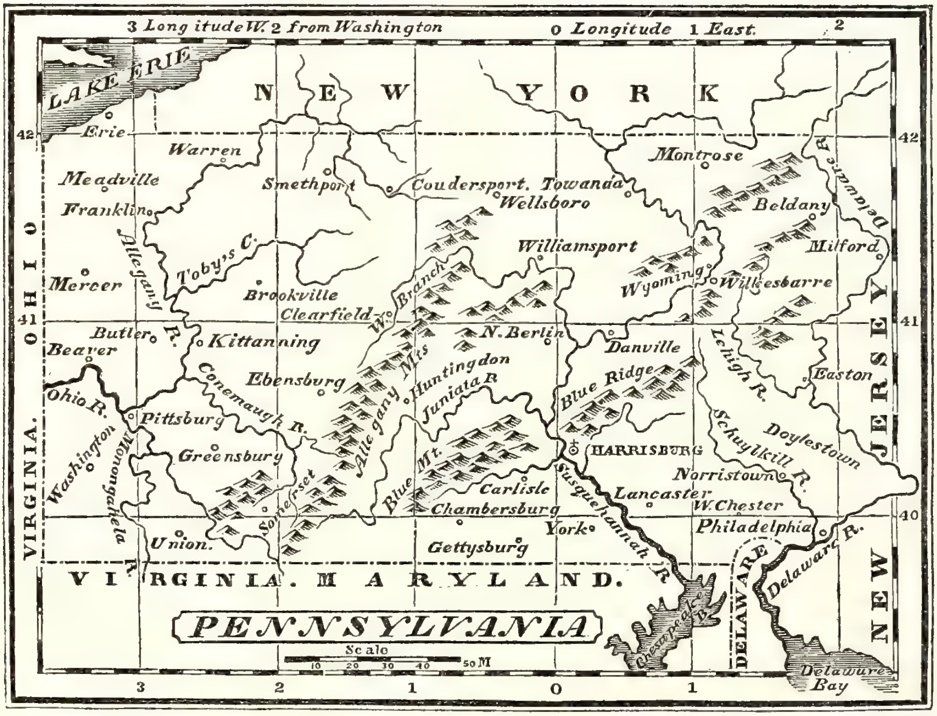
12 *Population.*

	Total.	Slaves.		Total.	Slaves
1790, ...	169,954	11,423	1820, ...	257,409	7,557
1800, . . .	195,125	12,422	1830, . . .	300,266	2,254
1810, ...	226,861	10,861			

13. *History.* New Jersey was first settled by the Dutch in 1624. The Swedes, in 1638, purchased the land along the Delaware from the Indians ; and in 1640, the English began a settlement within these limits at Elsingburg on the Delaware, but were soon driven away by the Swedes and Dutch. The Swedes built a fort at Elsinburg, and retained possession till 1655, when the Dutch of New York took all their posts, and sent the Swedes back to Europe. The English, in 1664, after reducing New York, turned their arms against these settlements, which immediately submitted. The Duke of York made a grant of the country to Lord Berkeley and Sir George Carteret, and the territory was named New Jersey in compliment to he latter, who had been governor of the isle of Jersey. The seat of government was established at Elizabethtown. The Dutch soon afterwards reconquered the whole country, but subsequently gave it up. In 1676, the territory was divided into East and West Jersey. In 1702, the proprietors surrendered both divisions to the crown, and they were formed into a single government by Queen Anne. They were ruled by one Governor, but continued to choose two assemblies. In 1738, two governors were again appointed. In 1776, the present constitution established the consolidation of the two governments.

CHAPTER XIV. PENNSYLVANIA.

PHYSICAL GEOGRAPHY.



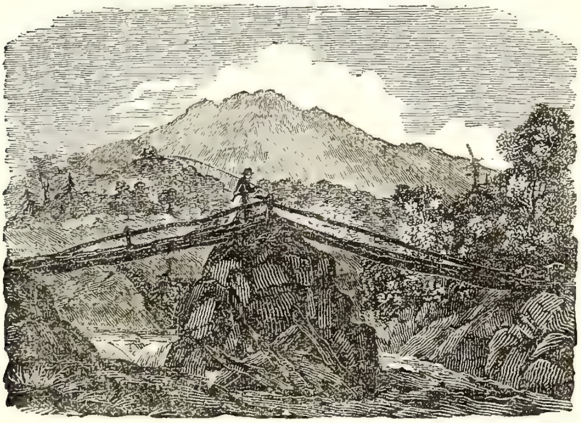
1. *Boundaries and Extent.* The northwestern corner of Pennsylvania is washed by Lake Erie ; the State of New York forms its northern boundary ; the river Delaware separating it from New York and New Jersey, bounds it on the east. A small portion of Delaware, with Maryland and Virginia, bound it on the south ; and a long, narrow strip of Virginia with Ohio forms its western boundary. Its shape is almost a perfect parallelogram ; three of its sides being marked by parallels of latitude and a meridian. It lies between 39° 43′ and 42° 15

north lat. ; and between 74° and 80° 40′ west long. It is 307 miles long and 160 broad, and contains 47,000 square miles.

2. *Mountains.* The *Appalachian* chain here spreads to its widest limits, and covers with its various ranges more than one half of the State. The greatest width of the chain equals 200 miles. It consists of parallel ridges sometimes little distant from each other, and at other times with valleys 20 or 30 miles broad lying between them. The range nearest the coast is called the *South Mountain*, and is a continuation of the Blue Ridge of Virginia. This, however, is hardly a distinct ridge, but only an irregular series of rocky, broken eminences, sometimes disappearing altogether, and at others spreading out several miles in breadth. These eminences lie 150 or 200 miles from the sea, and their height does not exceed 1,200 feet above the surrounding country. Beyond these are the *Kittatinny* or *Blue Mountains*, which extend from Maryland to New Jersey across the Susquehanna and Delaware. Further westward are the ridges bearing the names of the *Sideling Hills*, *Ragged Mountains*, *Great Warrior Mountain*, *East Will's Mountain* till we come to the *Alleghany Ridge*, the highest range, and from which this whole chain has in common language received the name of the *Alleghany Mountains*. The highest summits are between 3 and 4,000 feet above the level of the sea. West of the Alleghany are the *Laurel* and *Chestnut Ridges*. These mountains are in general covered with thick forests. The *Laurel Mountains* are overgrown on their eastern front with the tree from which they are named. The wide valleys between the great ridges are filled with a multitude of hills confusedly scattered up and down. The tops of the ridges sometimes exhibit long ranges of table land, 2 or 3 miles broad ; some of them are steep on one side, and extend with a long slope on the other. These mountains are traversed by the great stream of the Susquehanna and the head waters of the Ohio.

3. *Valleys.* The valleys of the *Susquehanna* and its branches are remarkably irregular. These streams traverse the whole width of the Appalachian chain of mountains, sometimes flowing in wide valleys between parallel ranges, for 50 or 60 miles in a pretty direct course, and at other times breaking through the mountain ridges. The valleys between the different ranges of the great chain extending throughout the whole State, are often 20 or 30 miles in width, with a hilly or broken surface.

4. *Rivers.* The *Delaware* washes the eastern limit of the State, and is navigable for ships from the sea to Philadelphia. It receives the *Lehigh* at Easton, which flows 75 miles in a southeasterly course, nearly half of it being navigable. Nearer the sea, and 6 miles below Philadelphia, it receives the *Schuylkill*, which flows also southeasterly 130 miles ; it is navigable for boats 90 miles, but at Philadelphia it is crossed by a dam belonging to the waterworks, and there are falls 5 miles above. The *Susquehanna* rises from two sources ; the eastern branch has its origin in Otsego Lake, in New York ; the western branch rises in the most elevated region of Pennsylvania, in the western part of the Appalachian mountains ; it passes through the great Alleghany ridge, and the others which lie east of it, and unites with the east branch at Northumberland. The river then flows southeast into Chesapeake Bay. The Susquehanna is the longest river of the eastern and central States, and is a mile and a quarter wide at its mouth ; but it is much obstructed by falls and rapids, which sometimes occur in a continual series for 50 miles together. That part of its course near the mouth affords the fewest advantages for navigation. This river abounds with fish, and vast quantities of salmon and shad are yearly taken in its waters. The *Juniata*, a branch from the west, which traverses the mountainous country, is a winding stream with broken and rocky banks, and the scenery along its shores is very picturesque. This river rises in the Alleghany mountains, and enters the Susquehanna 11 miles above Harrisburg ; being 180 miles long, and part of it navigable for boats.


Head-waters of the Juniata.

The *Tioga* is a feeder of the eastern branch, and rises north of the mountains, near the boundary of New York; it is navigable for boats 50 miles. The *Alleghany* rises west of the mountains in the northern part of Pennsylvania, and flows northerly into New York, where it curves to the southwest, and reënters Pennsylvania; it then flows south, till, after a course of 400 miles, it joins the *Monongahela* below Pittsburg. This last river has its source among the Laurel Mountains, in Virginia, and running north, enters Pennsylvania, and joins the Alleghany at Pittsburg; it is 300 miles in length. Both these rivers have a boat navigation for a great part of their course, and their united waters form the great stream of the *Ohio*, which, after a short course, passes out of this State. The *Youghiogeny* is a tributary of the Monongahela, and rises east of the Laurel Mountains, through which it passes, and runs into the Monongahela, 15 miles above Pittsburg. The Ohiopyle Falls are upon this river.

5. *Harbors.* About 40 miles of the northwestern border of the State lie upon Lake Erie; this extent of coast contains the harbor of *Presqu' Isle*, or Erie, which affords a good haven for small vessels.

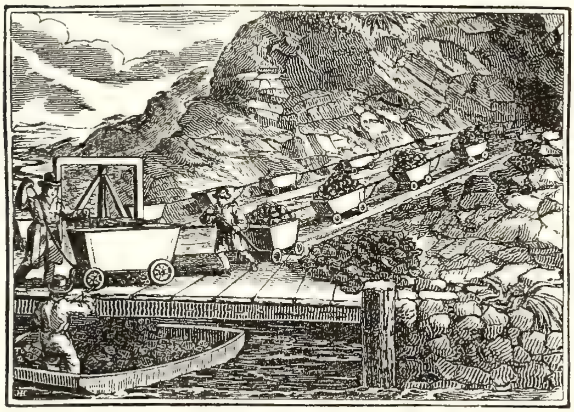
6. *Climate.* Under this head, Pennsylvania may be regarded as comprising three separate divisions, namely, the eastern slope of the mountains, the mountainous region, and the western slope. In the country east of the mountains, the climate does not differ greatly from that part of New Jersey in the same parallel. Its greater distance from the sea, and somewhat higher level, render the cold of winter in a slight degree more sensible, but the climate may be characterized in general terms as mild and temperate. The mountainous country lies exposed to the chilling northwest winds, and the winter in this part is severe, with deep snows. West of the mountains, the climate becomes milder; here the easterly winds of the Atlantic coast are unknown, and the country is not exposed to the sudden changes which they occasion. The heat of summer is not so great as upon the coast, and the autumn is long, serene, and temperate.

7. *Soil.* To the east of the mountains, the soil is excellent; in this part, the land is level, and enriched from the washing of the hills and uplands. In the interior, the soil is rocky and barren, with fertile spots in the valleys, and along the borders of the streams. Some of these valleys contain land as rich as any in the State, the soil being generally a black mould two or three feet deep; but among the mountains, it is not well adapted to cultivation. West of the mountains, the country improves, and around the head streams of the Ohio, is generally fertile.

8. *Geology and Minerals.* Pennsylvania is characterized by the inexhaustible abundance, rather than by the variety, of its useful minerals; iron-ore of several species, lime, marl, sandstone, clays, and slates, serviceable for agriculture, architecture, and other economical purposes, salt, and coal, occur in profusion; but the pretended deposits of silver and tin, lead, zinc, and copper, assigned to various localities, have no existence. By far the greater portion of the rocks belong to the secondary formations of the lower series, only the southeastern section furnishing some members of the transition and primary groups. The rocks of the Blue Ridge, comprising various slates, sandstones, and conglomerates, are referred to the former; east of this extends a newer group of red shales and sandstones, and variegated conglomerates, the prolongation of the belt ranging across New Jersey. Still another portion of this region is occupied by primary rocks of the stratified class, consisting chiefly of micaceous gneiss, mica, talcose, and chlorite slates, limestones, &c. Valuable deposits of magnetic iron-ore here, as elsewhere, characterize the primary strata, and traces of zinc (blende) and copper occur in the red sandstone formation; but the ores are not in sufficient quantity to be workable. The city of Philadelphia is indebted to the limestone beds of this tract for the beautiful marbles which adorn her streets. The rock formation of the great valley west of the Blue Ridge, consists of alternating belts of limestone and slate, occupying a low place in the geological series, and perhaps belonging to the transition group. The limestone is often argillaceous and slaty, generally blue, sometimes fossiliferous, and occasionally assuming the aspect of a marble, either pure white or of a gently variegated hue, with a fine, even fracture, susceptible of a beautiful polish. Some bands yield an excellent hydraulic cement, the usual place of which is near the contact with the slates; hematitic iron ore, which is easily reduced, and yields a large proportion of metal of superior quality, is also plentifully associated with these limestones. Some of the slate strata afford quarries of good roofing and writing slates.

The vast tract west of the Blue Mountains is divided by the Alleghany ridge into two strongly marked regions, of widely different aspect and geological structure; that on the east, comprising the various chains of the Kittatinny group, consists of numerous alternating strata of limestones, slates, shales, and sandstones, which have been broken up and thrown into great disorder, generally tossed into highly inclined positions, and often so much tilted up as to become perpendicular. The valleys of this region are valleys of elevation. West of that range, on the other hand, the rock strata preserve a nearly undisturbed horizontal position; but they have been cut through, and partially washed away by the action of water, so that only isolated patches of what once formed a continuous platform now remain, capping the summits of the loftier table lands, and separated by wide and deep valleys of denudation. The former of these regions contains vast deposits of anthracite, and some patches of bituminous coal; the latter is richly stored with bituminous coals and salt, and both contain inexhaustible quantities of iron-ore. Geologists have generally referred the coal-measures of the Kittatinny region to the transition formation, but the State geologist assigns to all the coal-measures of the State the same position in the series, placing the anthracite and likewise the coal of Broad Top in a position strictly equivalent to that occupied by the carboniferous strata west of the Alleghany Mountains.

The anthracite or non-bituminous coal is distributed in enormous quantities in three great fields, in a tract lying east of the Susquehanna, between the Blue Mountain and the North Branch, and extending eastward, to the Lehigh on the south, and nearly to the head of the Lackawannock on the north.



Coal Mining.

The first, or Mauch Chunk, Schuylkill, and Lyken's Valley coal-field, extends from the Lehigh, across the head branches of the Schuylkill, to Wiconisco Creek, in Dauphin county, being about 65 miles in length and about 5 of average breadth, having Broad Mountain on the north, and Sharp Mountain on the south; there are above 100 miles of railroads within this field, which is worked at both ends and in the middle, and at present yields annually about 500,000 tons, which are brought to market by the Lehigh, the Schuylkill, and the Susquehanna. The Lehigh or Mauch Chunk coal, which is procured from the northern end of the field, is somewhat heavier, harder, and more difficult of ignition than that from the southern portion, and it leaves white ashes on burning; it is highly prized for purposes requiring an intense and lasting heat, especially in the close-drawing or chemical furnace for warming buildings. The summit-mine, near Mauch Chunk, is an open colliery, the stupendous masses of coal being laid open by removing the soil and loose materials, and worked precisely like a quarry; the thickness of the beds varies from 12 or 20 to 35 and even 60 feet. The Room Run mines, in the same vicinity, have been more recently opened, and are found to contain 18 coal-seams of from 5 to 40 feet thick, presenting a total thickness of 240 feet. The Schuylkill coals, or those nearer the centre of the field, burn more freely and are more easily ignited than the Lehigh mineral, and generally leave a residuum of red ashes; there are upwards of 60 seams, some of which are from 25 to 30 feet thick. Here mining operations are carried on more largely than in any other portion of this field. The second coal-field lies north of the Broad Mountain; it is known as the Beaver Meadow, Shamokin, or Mahanoy field, but being buried behind dense chains of mountains, and having no direct southern outlet, it has been less thoroughly explored than the former; it is known, however, to contain coal seams of 20, 30, and even 50 feet thick, and it is worked at the northern extremity, where the Quakake Creek affords to the Beaver Meadow mines an outlet to the Lehigh, and towards the western, where the Mahanoy Creek renders a similar service. The third and last field is the Wyoming and Lackawanna coal-field, which occupies a long valley or trough of about the same extent as the others, extending from Carbondale, on the Lackawannock, to 10 miles below Wilkesbarre, on the Susquehanna. The beds are very numerous, varying from 1 to 30 feet in thickness, and are generally more accessible than those of the other fields. The northeastern extremity has been connected with the Hudson by the Delaware and Hudson Canal and the Carbondale Railroad, and has thus readier access to the eastern markets. The Lackawanna and Wyoming coals are of the harder variety, more difficult of ignition than the Schuylkill coals, but yielding an intense, durable heat.

Quantity of Anthracite brought to Market from 1830 *to* 1838.

	Lehigh.	Schuylkill.	Lackawanna.	Total.
1830	Tons. 41,750	89,984	42,000	173,734
1831	40,966	81,854	54,000	176,820
1832	75,000	209,271	84,500	367,771
1833	123,000	250,588	111,777	485,365
1834	106,000	226,692	42,700	375,392
1835 . . .	131,250	335,685	90,600	557,535
1836	146,502	443,754	106,270	696,526
1837	. . .	. . .	. . .	860,770

The southwestern part of this geological region contains bituminous coal of good quality ; the coal-seams of Broad Top Mountain and of Will's Mountain are about 6 feet in thickness, but they have yet been little worked. Salt springs also occur in this section. Iron-ore is abundant through the whole tract between the Blue Mountain and the Alleghany, and is generally found in the limestones, but it occurs also in some of the slates ; some of the deposits are of enormous thickness. The ores are hematites and hydrates, some being of the variety called pipe-ore, which is easily smelted, and yields a high percentage of excellent metal.

The portion of the State west of the Alleghany escarpment, forms the northwestern angle of the vast bituminous coal formation, which occupies a large part of the Mississippi Valley. As the rocks have a general dip towards the west, the coal-fields of the eastern part occupy only the more elevated spots, and they occur in detached basins ; such are the Towanda, Blossburg, Wellsboro, and Lycoming Creek basins, which once formed continuous beds, but are now insulated by the wearing down of the surface of the ancient table-lands, and the washing away of the intermediate portions of the coal-beds. The seams here are commonly five in number, comprised within a thickness of from 100 to 150 feet ; about three of these are of sufficient thickness to be worked, averaging about three feet. Further west, the coal is found in almost every county, in vast fields, often presenting numerous seams lying one above another, in the cliffs of the ravines and river-valleys. The annual consumption in Pittsburg is about 250,000 chaldrons ; about 150,000 are used at the salt-works on the Alleghany, Kiskiminetas, Monongahela, &c., and a good deal is carried down the Ohio and Mississippi. Rich deposits of nodular argillaceous iron-ore are extensively distributed throughout this region, associated with beds of limestone and seams of coal, offering every facility for its conversion into metal Salt is also extensively diffused in brine-springs, and is advantageously manufactured at various localities ; the sandstones and shales from which the brine is drawn, are of more recent date than those of the New York springs, belonging to the carboniferous series. The quantity annually produced here is estimated at 1,000,000 bushels. Petroleum or Seneca oil, and carburetted hydrogen, appear in many places ; sulphur, and alum, saltpetre, and copperas earths occur

9. *Mineral Springs.* The *Bedford Springs*, near the town of that name, among the mountains in the south of the State, were discovered in 1804. They arise from a limestone rock at the foot of a mountain. The water is cold, odorless, soft, and agreeable to the taste ; it is charged with iron, magnesia, and lime, and is efficacious in removing cutaneous and chronic complaints. There are several salt springs in the State, which are noticed under the head of minerals.

10. *Caves.* In the Laurel Mountain, is a cavern with a very narrow entrance, and various winding passages, which has been traversed two miles. It is formed of a soft sandstone, and its roof is covered with millions of bats. At Durham, in Bucks county, on the Delaware, is a cave in the limestone rock, abounding with pools and rivulets of water. At Carlisle, is another, somewhat similar, in which human bones have been discovered, probably of the aborigines.

11. *Vegetable Productions.* In this respect, Pennsylvania differs little from the interior of New York. The forests which cover so large a portion of the State, furnish immense quantities of timber trees.

12. *Face of the Country.* The level district on the east of the mountains is but a small proportion of the whole State. The mountainous country may be described as an elevated tableland, surmounted by numerous parallel ridges. The country west of the mountains is comparatively level

POLITICAL GEOGRAPHY.

1. *Divisions and Population.* Pennsylvania is divided into 53 counties[*] and 651 townships. The capital is Harrisburg.

Population at several periods.

Years.	*Whites.*	*Slaves.*	*Free Blacks.*	*Total Colored.*	*Total.*
1790	424,099	3,737	6,537	10,274	434,373
1800	586,095	1,706	14,564	16,270	602,365
1810	786,804	795	22,492	23,287	810,091
1820	1,017,094	211	32,153	32,364	1,049,458
1830	1,309,900	67	38,266	38,333	1,348,233
1840					

2. *Canals.* The State works, begun in 1825, comprise a series of railroads and canals extending across the country from tide-water to the Ohio, and branching off in different directions, to almost every section of the State; they embrace 810 miles of canals, and 118 miles of railroad, executed at a cost of about 25,000,000 dollars. The Grand Trunk extends from Philadelphia to Pittsburg, a distance by this route of 400 miles. The first division of the work is a railroad from Philadelphia to Columbia, on the Susquehanna, 81 miles; here the canal begins, and is continued up the Susquehanna and the Juniata to Holidaysburg, 172 miles, part of which distance is occupied by pools; the rise and fall in this section is 748 feet, and the summit at Holidaysburg is 684 feet above Columbia; the canal is 40 feet wide at top and 4 feet deep; locks, 111; dams, 18; aqueducts, 33. The Alleghany ridge is then surmounted by the *Alleghany Portage Railroad*, 37 miles in length, with a total rise and fall of 2,570 feet; the road comprises 10 inclined planes, about 4 miles in length, passed by stationary steam-engines; the summit level is 2,325 feet above the sea; cost, including 3 locomotives, 1,749,500 dollars. There is a tunnel on this road 870 feet long, 20 feet high, and 16 feet wide, cut through the solid rock, 200 feet below the top of the hill. At Johnstown, the western section of the canal begins, and is continued down the Conemaugh or Kiskiminetas and Alleghany to Pittsburg, 104 miles, with a total lockage of 471 feet; locks, 64; dams, 10; aqueducts, 16. The *Delaware Branch* of the Pennsylvania Canal extends from Easton to Bristol, on the right bank of the river, 60 miles, with a descent of 170 feet. The *Susquehanna division* extends up the Susquehanna and the North Branch, from the mouth of the Juniata to that of the Lackawannock, 115 miles, and the continuation to the northern boundary line is now in progress. The *West Branch division* runs from Northumberland up the West Branch of the Susquehanna to Farrandsville, 73 miles. A continuation of this section to the Alleghany, forming an uninterrupted water communication across the mountains, is contemplated. The *French Creek division* extends up the river of that name from Franklin, at its mouth, to Meadville and the Conneaut Lake; total length, 46 miles. The *Beaver Branch*, from the Ohio to Newcastle on the Shenango, is 30 miles long.

Receipts from the Public Works in 1835, 1836, *and* 1837.

	1835.	1836.	1837.
Canal and railroad tolls,	$ 597,631	$ 670,760	$ 660,595
For motive power,	86,726	165,171	185,915
Totals,	684,357	835,931	846,510

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[*] Adams
Alleghany
Armstrong
Beaver
Bedford
Berks
Bradford
Bucks
Butler
Cambria
Centre
Chester
Clearfield
Columbia
Crawford
Cumberland
Dauphin
Delaware
Erie
Fayette
Franklin
Greene
Huntingdon
Indiana
Jefferson
Juniata
Lancaster
Lebanon
Lehigh
Luzerne
Lycoming
M'Kean
Mercer
Mifflin
Monroe
Montgomery
Northumberland
Northampton
Perry
Philadelphia
Potter
Pike
Schuylkill
Somerset
Susquehanna
Tioga
Union
Venango
Warren
Washington
Wayne
Westmoreland
York

The canals executed by companies are as follows: The *Mahoning* or *Pennsylvania and Ohio Canal*, connecting the Beaver division of the Pennsylvania works with the Ohio Canal at Akron, and the *Sandy and Beaver Canal*, connecting the same works through the valleys of the Little Beaver and Sandy rivers, are principally in Ohio. The *Lackawaxen Canal*, extending from the Delaware, at the mouth of the river of that name, to Honesdale, 25 miles, is a continuation of the Delaware and Hudson Canal, and is itself connected with the Lackawanna coal-field by the Carbondale Railroad, 16½ miles in length. The *Lehigh Navigation* consists of a series of canals and slack-water pools, produced by dams; length of the works to Whitehaven, 66 miles. The *Mauch Chunk*, *Room Run*, and *Beaver Meadow* railroads, connect this work with the first and second coal-fields. The Delaware division of the Pennsylvania Canal, and the Morris Canal through New Jersey, continue the navigation to Philadelphia and New York; tolls received in the first half of the year 1837 (to August 1st), 85,000 dollars. In a portion of this work the locks have a lift of from 20 to 30 feet, and are passed in the same time as locks of the ordinary lift; there are 29 locks of this construction, equivalent to 75 locks of 8 feet lift, making a saving of 4 hours in the distance of 20 miles. The lower portion of the work, executed at a cost of 1,560,000 dollars, comprises 9 dams and 54 locks, with a rise of 365 feet; width, 60 feet; depth, 5 feet. The *Schuylkill Navigation* is of a similar character to the Lehigh, and it connects the central part of the first coal-field with tide-water at Philadelphia; length, 108 miles, 36 feet wide at top, and 3½ feet deep; 129 locks, with a rise of 610 feet; 34 dams; and a tunnel 385 feet in length. The coal in 1836 was brought to the canal by the following railroads:

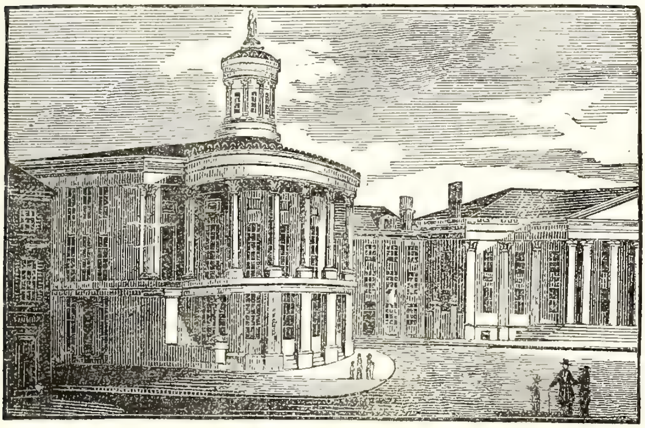
	Tons.
Danville and Pottsville (from Girard mines in second field), . . .	13,347
Mount Carbon (8 miles through Pottsville), ...	122,892
Schuylkill Valley (from Port Carbon to Tuscarora, with branches, 25 miles),	55,921
Mill Creek (from Port Carbon up Mill Creek, with branches, 7 miles), .	56,583
Little Schuylkill (Port Clinton to Tamaqua, 23 miles), . . .	35,159
West Branch (Schuylkill Haven to Nine Hill Gap, with branches, 20 miles),	115,992
Other sources, ...	49,890
Total, . .	449,784

The *Union Canal* connects the Schuylkill at Reading with the Susquehanna at Middletown, 82 miles; 93 lift and 2 guard-locks, with a lockage of 520 feet, 14 aqueducts, 1 tunnel 730 feet in length; breadth at top, 36 feet; depth, 4 feet. It affords, with the Schuylkill and the Pennsylvania Canals, an uninterrupted navigation from Philadelphia to the Lackawanna, Farrandsville, and Holidaysburg. A navigable feeder runs up the Swatara to Pine Grove, 23 miles, whence there is a railroad 4 miles in length to the coal mines of the first coal-field. The *Conestoga Navigation* extends from Lancaster to the Susquehanna, 18 miles, and the *Codorus Navigation* from York to the same river, 11 miles. The *Susquehanna Canal*, extending from Columbia down the river to Port Deposit, connects the great works above with the Chesapeake Bay; length, 40 miles. The *Nescopeck Canal* is designed to connect the *Lehigh Canal* at Whitehaven with the State works by the valley of the Nescopeck, and the *Bald Eagle Navigation*, 25 miles, facilitates access to the great iron and coal deposits of that region.

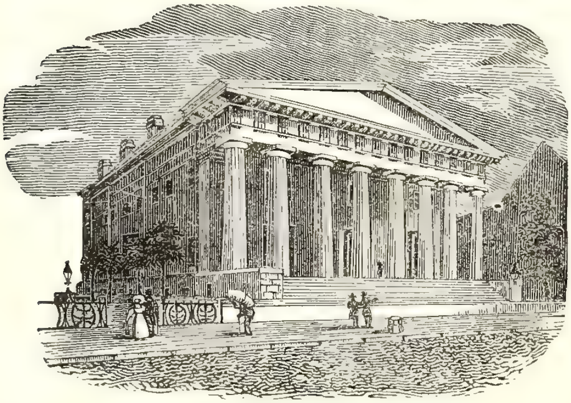
3. *Railroads.* The principal railroads, exclusive of those made by the State, and those in the coal region, which have been above enumerated, are as follows: The *Philadelphia and Trenton Railroad*, connecting those two cities, 26 miles in length, forms a link in the continuous line of railroad from Washington to New York. The *Philadelphia and Wilmington Railroad*, of which 17 miles is within this State, makes the southern continuation of this line. The *Philadelphia and Reading Railroad* runs up the valley of the Schuylkill 56 miles; there is a tunnel cut through the solid rock 1,932 feet in length, 19 feet wide, and 17 high. A continuation of this road extends to Port Clinton, 20 miles, and from that point the *Little Schuylkill Railroad* extends 20 miles to Tamaqua. From Tamaqua, the *Susquehanna and Little Schuylkill Railroad* extends to Catawissa on the former river, 38 miles. The *Central* or *Dansville and Pottsville Railroad*, from Pottsville to Sunbury, is 44½ miles long, with a branch to Danville, 7 miles in length; on this road there are several self-acting planes, and a tunnel 800 feet in length. The *Lancaster and Harrisburg Railroad* leaves the Columbia railroad near Lancaster, and extends to Harrisburg, 37 miles. The *Westchester Railroad* connects that village with the *Columbia Railroad*, and is 9 miles long. *The Cumberland Valley*

Railroad, from Harrisburg to Chambersburg, 49 miles, and the ***Wrightsville and Gettysburg Railroad***, from Columbia to the latter place, 40 miles, are prolongations of the Columbia and Lancaster railroads. The *Baltimore and Susquehanna* ***Railroad***, extending from Baltimore to York, has 20 miles of its route within this State ; from York to Wrightsville, 12 miles, it is merged in the last-named road. The *Williamsport and Elmira* ***Railroad***, connecting the West Branch of the Susquehanna with the Tioga, and thus affording an easy exchange of the iron and coal of central Pennsylvania, for the wheat, salt, and gypsum of western New York, is in progress ; length 74 miles.

4. *Cities and Towns.* *Philadelphia*, the second city of the United States in size, is situated on the west bank of the Delaware, 126 miles from the sea. The river is navigable for ships of the line up to the city. It lies 3 miles along this river, and its western limit is washed by the Schuylkill, which falls into the Delaware, about 6 miles below. The ground on which the city stands is an almost unbroken level, so that it exhibits no striking appearance as the spectator approaches it. The streets are perfectly rectangular, and Philadelphia is probably the most regular and uniform city in the world. It is at the same time one of the most agreeable. The climate is fine, the city remarkably clean, and abundantly supplied with the best of water. To this we may add, that the markets are among the best in the country, while the expenses of living are one fourth less than in Boston, and one third less than in New York. The streets are from 50 to 113 feet wide. The houses are mostly of brick, much darker in color than in the Eastern States, and resembling at a short distance the common red sandstone. The streets are generally paved and kept clean. The handsomest of the public buildings in the city, and perhaps in this country, is Girard College ; the main building, of white marble, is 169 feet by 111, entirely surrounded with Corinthian columns. The United States Bank, in Chestnut Street, is of white marble, with a front on the model of the Parthenon. It never fails to excite an agreeable emotion when first seen by a stranger. The United States Mint, and Marine Asylum, the Exchange, and the Bank of Pennsylvania, are also handsome marble edifices. The State House is a somewhat antiquated structure, and is chiefly remarkable for containing the hall in which the Declaration of Independence was signed ; adjoining this building is a beautiful enclosed walk, planted with trees

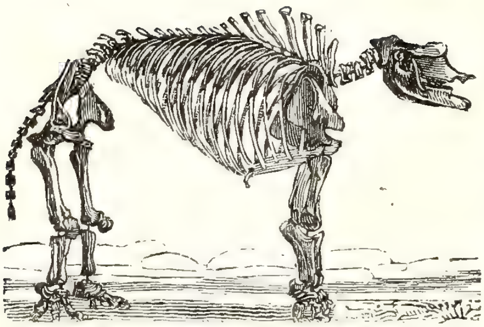


Philadelphia Exchange.

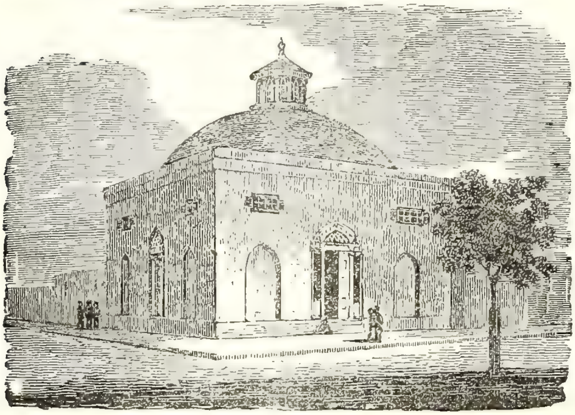


United States Bank.

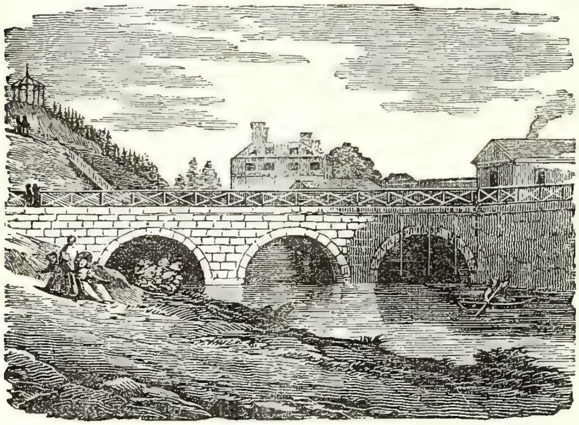
The Arcade.



Skeleton of the Mastodon, in Peale's Museum.



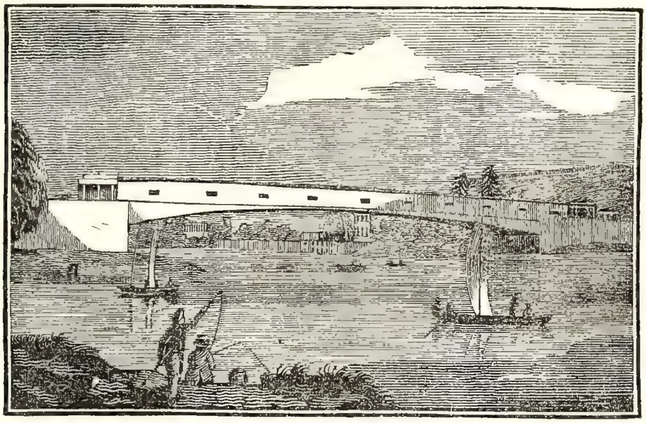
Academy of Natural Sciences.



Fairmount Water-Works.

Other handsome public walks are Washington Square, Franklin Square, &c. The Arcade, extending from Chestnut Street to Carpenter Street, has two handsome fronts of marble. Peale's Museum contains most of the birds from which Wilson drew the figures which illustrate his admirable work on Ornithology, and also the most perfect skeleton of the mastodon which has yet been found in this country. In the same building is the curious and interesting collection, called the Chinese Museum, consisting wholly of Chinese utensils, furniture, works of art, costumes, &c. The Pennsylvania Hospital is one of the oldest and most respectable institutions in the country; it comprises two buildings, one of 278 feet in length; the number of patients is usually about 200. West's painting of Christ Healing the Sick, presented by the artist to the hospital, is shown in a building attached to the establishment. The institution for the blind, and that for the dumb, Will's hospital for the lame and blind, several orphans' and widows' asylums, &c., are among the charitable institutions for which Philadelphia is famed. The Philadelphia Library was established by the exertions of Dr. Franklin, and now contains 44,000 volumes; the building is ornamented with a marble statue of the founder. The American Philosophical Society have a library of 10,000 volumes, and the Hospital 5,000. The Pennsylvania University occupies an edifice originally designed for the residence of the President of the United States. The Pennsylvania Academy of Fine Arts has a good collection of paintings, some pieces of statuary, and a library. The building which they occupy contains a circular saloon, lighted from a dome at the top, and several galleries. An exhibition of paintings is held here annually. The Academy of Natural Sciences have a fine museum and an excellent library of 6,000 volumes. A scientific journal is published under their direction.

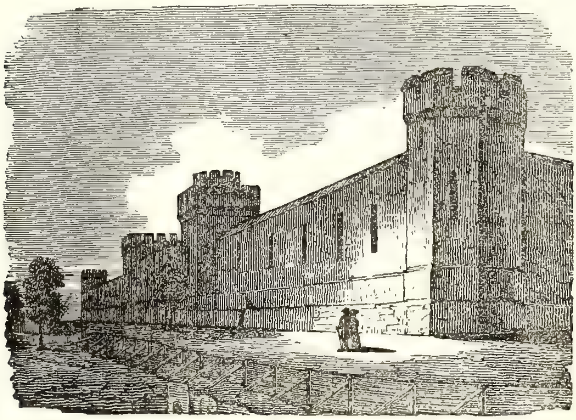
The city and suburbs have numerous large manufactories of cotton, iron, glass, &c., besides the great variety of articles made in small establishments. In point of commerce, Philadelphia is the fourth city in the Union. The foreign commerce is considerable; the annual value of the direct imports from foreign parts being about 12,000,000 dollars, of exports 3,600,000; but the inland and coasting trade is much more extensive, and is rapidly increasing. The shipping amounts to 100,000 tons. Bookselling is a flourishing branch of trade in Philadelphia, and the republication of English works is carried on largely. There are 71 periodicals, newspapers, and monthly and quarterly magazines, &c. Of the newspapers, 8 are daily, and one of the weekly journals is in German. The city contains 100 churches, chapels, and other places of worship, including 2 synagogues, 7 markets, 3 theatres, 16 banks, 18 insurance companies, a navy yard and arsenal of the United States.



Upper Ferry Bridge, Philadelphia.

The city is supplied with water by means of the Fair Mount water works, where the Schuylkill is dammed up, and the water of the river raised into reservoirs holding nearly 25,000,000 gallons. From these the water is conveyed by pipes, amounting in their aggregate length to 100 miles, through Philadelphia and the suburbs. The daily consumption is 4,000,000 gallons. These works cost nearly half a million dollars. There is a bridge over the Schuylkill below the water works ; the Delaware has no bridge below Trenton ; the upper ferry bridge, over the Schuylkill, with an arch of 324 feet span, was lately destroyed by fire.

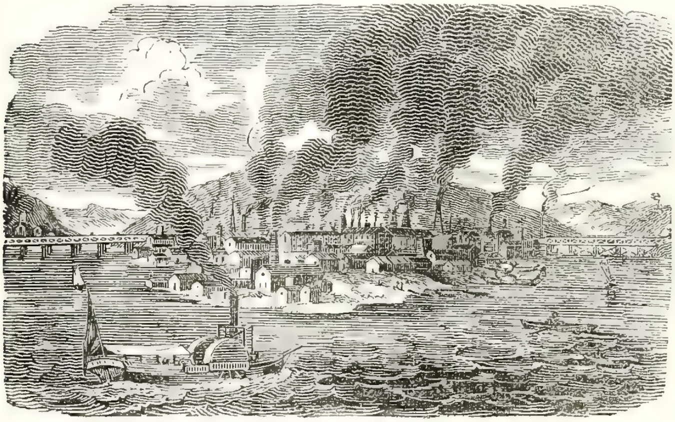
The *Eastern Penitentiary*, or State prison, is without the city, to the northwest. It stands on an elevated spot, and is the largest building in the United States, occupying an area of 10 acres. Its front is built of large blocks of granite, with towers at the angles and along the walls. The principal front is 670 feet in length. The *Almshouse*, a huge pile, on the western bank of the Schuylkill has accommodations for 4,000 inmates. The County prison, to the south of the city, consists of a centre building, in the Gothic castellated style, with 400 cells, and other buildings of freestone in the Egyptian style for debtors, &c.



Eastern Penitentiary.

Philadelphia was founded by William Penn, in 1682, and chartered by him in 1701 ; but the charter under which it is now governed was granted in 1796. The government consists of a mayor, 2 councils, and a board of Aldermen ; the councils are elected by a popular vote ; the mayor is elected annually by the councils, and the aldermen are appointed by the governor of the State. Population of the city and suburbs, 200,000.

Pittsburg, in the western part of the State, is the next in importance to Philadelphia. It stands upon a point of land at the junction of the Alleghany and Monongahela rivers, which here take the name of Ohio. It is built on a regular plan, upon the slope of an eminence, and a level plain at its foot. It is finely situated for trade, and enjoys a communication by steamboats with all the great towns on the Ohio and Mississippi ; but it is most distinguished for its large and flourishing manufactures of glass, iron, woolen, and cotton. The surrounding country is exceedingly rich in bituminous coal, which is delivered at the houses for three cents the bushel. The constant use of this fuel causes a perpetual cloud of black smoke to hang over the place. The suburbs, Birmingham and Alleghany, lie on the opposite sides of the 2 rivers, and communicate with the city by bridges. A person in Pittsburg, who has been in England, would imagine from the dingy aspect of the houses, which are blackened with smoke ; from the constant smell of burning coal, and streams of smoke which are ascending from the furnaces in every direction, that he was in one of the great manufacturing towns of that country. The coal is chiefly obtained from the southern side of the Monongahela ; the pits are at an elevation of 2 or 300 feet from the river. They enter the earth horizontally, and some of them extend 500 yards. The coal is drawn out in little cars by men or horses, and carried in heavy wagons to the town. A man will get out about 85 bushels of coal in a day. Some of the manufacturing establishments are situated on the margin of the river; and the coal, which is obtained from the bank above, slides down a wooden trough into the building where it is to be used.


View of Pittsburg.

Ruins of the Magazine at Fort Duquesne.

There are here 130 steam engines, 30 iron founderies and rolling mills, 10 cotton factories, and as many glass works and tanneries, in all, 300 manufacturing establishments, the value of whose annual products exceeds 12,000,000 dollars.

There are several handsome buildings in the city, but its general appearance is disagreeable. At the point where the 2 rivers unite, a crowd of steamboats may be seen, which are occupied in plying between Pittsburg and various towns below. The magazine of Fort Du Quesne, built here at the first settlement of the country, was remaining in an entire state in the autumn of 1831, when a sketch, from which the annexed engraving was taken, was made by the author; but there are now no remains of the old French works. A fine aqueduct, belonging to the Pennsylvania canal, crosses from the town to the northern bank of the Alleghany river.

Large quantities of wheat and other produce come down the Monongahela to Pittsburg, from the fine lands which lie along the borders of that river. Immense timber rafts, some of them one fourth of a mile in length, may be often seen floating down the Alleghany. Population of Pittsburg and suburbs, 40,000.

Harrisburg is the seat of government, and is situated on the Susquehanna, near the eastern skirt of the mountainous region. Its plan is regular, and the site level. The State-house occupies an elevation overlooking the town, and is a large and elegant building. Population, 5,000.

Reading, upon the Schuylkill, is a manufacturing and trading town, peopled in a great measure by Germans. It is particularly distinguished for the manufacture of hats. The town is regular, and its business is thriving. The Union canal commences in this neighborhood. Population, 8,000.

Lancaster, on a branch of the Susquehanna, is also chiefly inhabited by Germans. It has considerable manufactures, and there was formerly a college established here. It is regarded as one of the handsomest towns in the Middle States. The surrounding country is celebrated for the excellence of its soil, and its high state of cultivation. The farms are generally large, and managed with great skill. Population, 10,000.

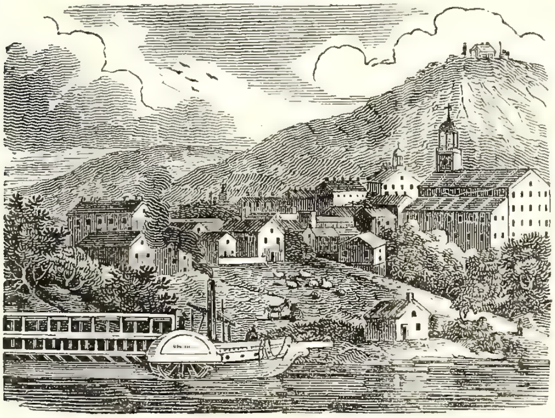
Bethlehem, the principal settlement of the Moravians, stands on the Lehigh, and occupies a fine situation rising from the river, which is here crossed by a bridge. The town is closely built upon three streets, and contains a large Gothic church of stone, and a female seminary. The grave-yard, in the neighborhood is very neatly laid out with alleys and rows of trees.

Nazareth is another Moravian town, 10 miles from Bethlehem, and is the spot at which these people first settled in this country.

Easton, on the Delaware, at the mouth of the Lehigh, is a handsome town, regularly laid out around an open square. Three canals, which unite at this point, secure to the place a flourishing trade, and Easton is one of the best flour markets in the country. The neighborhood is highly picturesque, and there are bridges across the Delaware and Lehigh ; the latter is a chain bridge. Population, 5,000.

Honesdale and *Carbondale*, in the northeastern corner of the State, with 2,000 inhabitants each ; *Wilkesbarre*, in the charming valley of Wyoming, on the North Branch of the Susquehanna, with 3,000 inhabitants ; and *Pottsville*, near the source of the Schuylkill, with 3,500, are the principal towns in the coal region. *York*, in the southern part of the State, west of the Susquehanna, is a busy and prosperous town, with 5,000 inhabitants. *Chambersburg* and *Carlisle*, in this region, are also thriving towns, with considerable manufactures.

In the northwest, *Erie*, on the lake of the same name, is the only good lake harbor in Pennsylvania ; its trade is rapidly growing in importance. Population, 3,000.



Village of Economy.

A few miles below Pittsburg, on the west bank of the Ohio, is the village of *Economy*, inhabited by the sect of Harmonists, under the direction of the celebrated Rapp. This village is neatly built with broad, rectangular streets, and handsome frame houses, although some of the primitive log cabins of the settlement still remain. The inhabitants are Germans, about 800 in number, and emigrated to America in 1805. They first settled in this State, but afterwards removed to Indiana, and finally returned and established themselves at this spot. They have a large woolen and cotton manufactory, with steam machinery, occupying several four-story buildings of brick, besides breweries, distilleries, tanyards, and various other works. They have also a handsome church, and a large edifice containing a hall for concerts, a museum of natural curiosities, a collection of minerals, a mathematical school, a library, and a school for drawing. All their property is nominally held in common.* Their establishment is very flourishing, and their trade with the neighborhood extensive. Marriage is not permitted among them. The village has a beautiful appearance as the voyager is descending the river in a steamboat. The buildings are scattered along the bank of the river, and in the rear of the town is a lofty hill covered with vineyards ; on the top of it is a handsome building for the preserving of grapes, the making of wine, &c.

Beaver City, at the mouth of the Beaver Creek, is a growing manufacturing place, with a boundless power furnished by the falls in the river. Population, 5,000. *Brownsville* is a prosperous village on the Monongahela, with 2,000 inhabitants.

Several of the places which we have described are very handsome, but most of the inferior towns and villages in this State are destitute of the neatness, taste, and cheerful aspect which belong to those of New England. Many of the houses consist of wooden frames, filled in with brick and mortar, and many others are built of squared logs, laid one upon another. They are often marked with an utter neglect of cleanliness, and the inhabitants, who may be seen in the streets, and at the doors and windows, have an appearance befitting their dwellings. Many of these villages are occupied by emigrants from Ireland, Holland, and various parts of Germany. In some places, a large part of the inhabitants can speak no other than their native language.

5. *Agriculture.* East of the mountains, and especially in the neighborhood of Philadelphia,

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* Mr. Rapp, the head of this society, was a German peasant, who commenced its formation at Wirtemberg about the year 1780. He died in 1834, and his son appears now to be the legal proprietor of all the lands and real estate nominally belonging to the settlement. In religion, the people are Lutherans, with the addition of some peculiar doctrines.

the country is under excellent cultivation, and great attention is paid to agricultural pursuits. The farms in the State are generally large, and skilfully managed. There are about 2,000,000 sheep in the State. Wheat and maize are the most important products, and flour of the best quality is sent to the Philadelphia and Baltimore markets. This region also produces abundance of excellent fruit. The watermelons, which are raised here, are of the best quality, and produced in such abundance, as to be often sold in the cities for a cent a piece. Peaches, pears. and apples are also raised in great quantities and in high perfection. In the interior and western parts, the grain already mentioned, with buckwheat, rye, oats, barley, hemp, and flax, are much cultivated.

6. *Commerce.* Philadelphia enjoys nearly all the foreign commerce of the State. This chiefly consists in the export of the productions above mentioned. The coasting trade also of this port is considerable. A great internal trade is carried on between Philadelphia and the West, across the mountains. The most common routs are to Pittsburg and Wheeling.* There is also a port at Presqu' Isle, on Lake Erie, which has some trade. The shipping of the State amounts to 104,614 tons; the annual imports, to 12,000,000 dollars; the exports to foreign countries, to 4,000,000 dollars.

7. *Manufactures.* Pennsylvania is the first State in the Union for manufactures. Those of Philadelphia have already been mentioned. At Pittsburg and in the neighborhood, are very large establishments of various kinds. The glass manufactures of this place are particularly celebrated, and furnish cut-glass ware and window glass equal to any in the country. The glass is white, clear, and excellent, both in texture and polish. The cotton manufacture is also extensive, and occupies several large establishments here and in the neighboring towns of Alleghany and Birmingham. The manufactures of iron employ 9 founderies, 8 rolling-mills, and 9 nail factories, which make 18 tons of nails daily. There are also 7 manufactories of steam-engines, and lately the manufacture of sugar-mills, and small steam machinery to drive them, has become an important branch of business. There are two establishments in Pittsburg for the manufacture of steel. There are great numbers of iron-works in various parts of the State. At York, is a foundry for church bells, manufactures of cutlery, surgical instruments, &c. Elegant carpeting is also made at the same place. At Manyaunk, on the Schuylkill, are large cotton and woolen manufactories. At Chambersburg, besides other establishments, are extensive manufactories of edge tools, axes, carpenters' tools, hatchets, chisels, &c., of a quality and temper equal to any made in England. At Bush Hill, near Philadelphia, is a manufacture of elegant floor-cloths from hemp and flax, and of table-cloths from cotton. At Bethany, in Wayne county, is a glass manufactory, which produces 450,000 feet of window glass annually.

In the western part, are large manufactures of salt from springs. The principal salt-works are on the Conemaugh, a stream running into the Alleghany. The water is obtained by boring. The strongest water is found 400 or 500 feet below the surface. Copper tubes are inserted in the perforation, in which the salt water rises to a level with the river, accompanied by sulphuretted hydrogen gas, often in considerable quantity. Fresh water is seldom found below 100 feet. Veins of coal and slate are penetrated at various depths, and narrow beds of limestone, lying deep, are passed through. In the process of manufacturing, salt water is pumped by horse-power into large troughs, where the earthy particles not held in solution, mostly subside It is then passed into a shallow boiling pan of cast-iron, and after boiling is drawn off into vats, where the oxide of iron, which is abundant, and the earthy salts, subside, together with a portion of muriate of soda. The clean brine is passed off into a boiler, in which the salt, in fine crystals, is precipitated, and then removed to drain. No use is made of the sulphate of soda, of which there is considerable in the water. The salt manufactured at Kiskiminetas and Conemaugh has in some years amounted to 1,000,000 bushels; it is sold at from 20 to 25 cents per bushel, at the works; the expense of manufacturing does not exceed 10 cents a bushel.

A large portion of the numerous salt-works are near the river, in the ravines of the Kiskiminetas, and coal for fuel is procured from veins situated above the works, in the side of the hill, and costs but a cent a bushel. Considerable salt is made near Pittsburg, from a fountain obtained by boring 270 feet; the water is strong, and is raised by a steam-engine; the salt is white, and of a good quality. This fountain is sufficient for the annual manufacture of 25,000 bushels. There are other salt springs on the Ohio, and also on the Chenango and Mahony. The preceding items may afford the reader some general notion of the nature and extent of the manufactures of this State, no regular and complete account of which has yet been embodied.

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* A great part of the transportation between Philadelphia and the western country is carried on by means of large, heavy wagons, of a peculiar construction, although the railroads and canals have monopolized most of this business. The bodies are long, and covered by cloth supported by bent posts. These are higher before and behind than in the middle. They are usually drawn by 5 or 6 horses, and these are, with few exceptions, of the Hanoverian breed. They are large, and usually in good condition, but they are much inferior to the New England horses in spirit, strength, and bottom. A representation of one of these wagons will be found in the vignette at the head of the article on the *Middle States.*

8. *Government.* The legislature is called the *General Assembly*, and consists of a Senate and House of Representatives. The senators are chosen for three years, and the representatives annually. The suffrage is universal. The governor is chosen for three years by a popular vote. There is no lieutenant-governor, and no council. The governor can only be elected thrice in 12 years, and on retiring from office becomes a senator. The legislature meets annually at Harrisburg, in December. The State sends 28 representatives to Congress.

9. *Religion.* The Presbyterians are the most numerous, and are divided into two classes, one of which call themselves Associate Presbyterians. These two bodies have 400 preachers. The Baptists have 140; the Methodists, 250; the German Reformed Church, 73; the Episcopalians, 70; there are also Lutherans, Unitarians, Catholics, Quakers, Dutch Reformed, Universalists, Moravians, Swedenborgians, Mennonists, and Jews.

10. *Education.* The *University of Pennsylvania*, at Philadelphia, was originally an academy and charity-school, and, after repeated augmentations, became the university of the State in 1791. It has 13 professors, one of whom is chief officer of the university, with the title of Provost. *Dickinson College*, at Carlisle, was founded in 1783, but was for a time suspended. It has at present 8 instructers and 130 students, with a library containing 3,000 volumes. *Jefferson College*, at Canonsburg, was founded in 1802. It has a president, 9 professors, and 170 students. The library contains 1,500 volumes. The *Western University*, at Pittsburg, was founded in 1820. It has 7 instructers, and 53 students. *Alleghany College*, at Meadville, was founded in 1815. *Washington College*, at Washington, was established in 1806. It has 5 instructers, and 100 students. *Pennsylvania College*, at Gettysburg, *Lafayette College*, at Easton, and *Marshall College*, at Mercersburg, are new, but flourishing institutions. Notwithstanding the number of literary institutions, education is in a backward condition. Not above one third of all the children in this State attend school, and the general means of instruction are very limited. The public attention, however, has lately been turned to the subject, and exertions are making for the advancement of popular education. The late Stephen Girard left 2,000,000 of dollars for the establishment of a school in Philadelphia.

11. *History.* William Penn, a Quaker, obtained from James the Second, of England, a grant of this whole territory, in 1681. This grant was made in consideration of services rendered the crown by the father of Penn, who was an admiral in the English navy. The territory at this time contained no settlement. In the autumn of the same year, three ships set sail for the country, loaded with settlers, chiefly Quakers. They landed at the spot where Philadelphia now stands. The next year, Penn, with another large body of settlers, came to the country; he purchased a tract of land from the Indians, laid out the city of Philadelphia, and, with a convention of the settlers, established a form of government and a body of laws. Penn returned to England, and, on the accession of William the Third, the government was taken from him, but was afterwards restored. In 1699, he revisited Pennsylvania, and remodelled the government. Delaware, which originally formed part of the colony, was allowed a distinct legislature. The early history of this State is not diversified with those narratives of Indian hostilities, which confer so deep an interest upon the annals of most of the other colonies. For 70 years after the beginning of the settlement, an uninterrupted harmony existed between the colonists and the Indians. Pennsylvania continued under the original charter until after the American Revolution. The present constitution was established in 1790.

CHAPTER XV. DELAWARE.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* Delaware is bounded N. by Pennsylvania; E. by the river and bay of Delaware and the ocean; and S. and W. by Maryland. Except Rhode Island, it is the smallest State in the Union, containing but 2,120 square miles. It is 92 miles long, and 35 miles is its greatest width. It lies between 38° 29′ and 39° 47′ N. lat., and 75° and 75° 40′ W. lon

2. *Rivers.* ***Brandywine Creek*** passes through this State from Pennsylvania; it is 40 miles long, and is no more than a fine mill-stream. A battle was fought in its neighborhood, in 1777, between the Americans, under Washington, and the British, under Lord Howe. ***Christiana Creek*** receives the Brandywine, and runs into the Delaware. It is navigable for small vessels 15 miles. The other streams are too unimportant for notice.

3. *Bay.* *Delaware Bay* forms a great part of the eastern boundary of this State, but affords naturally no good harbor for ships. To remedy this deficiency, the United States government are now constructing a breakwater and dike at the entrance of the bay, just within Cape Henlopen. The breakwater is two thirds of a mile in length, and is a wall of stone, 22 feet wide at the top, and sloping outwardly on both sides. The dike is about half the length of the breakwater; it is placed further within the bay, and is chiefly designed as a defence against the ice which floats down the stream. Both of these are built of immense blocks of stone, sometimes 3 tons in weight, and are a little more than 5 feet above the highest tides. When completed, these works will form a secure harbor with two entrances, and from 4 to 6 fathoms depth of water.

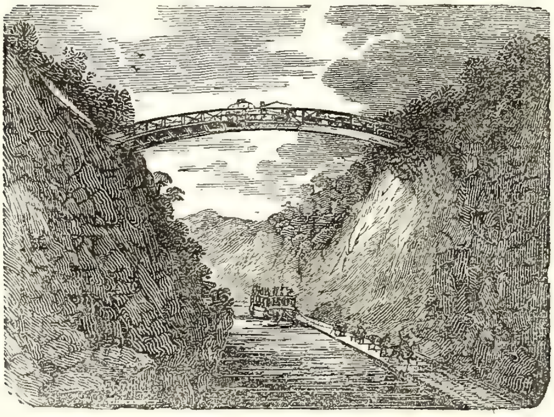
4. *Climate.* It will be perceived, that the climate of Delaware cannot differ much from that of the southern part of New Jersey, and the small extent of this State assures us, that it must be uniform throughout.

5. *Soil, &c.* The northern part, and most of the land lying along the Delaware, is clayey, but rich, and fine for tillage. Timber of the largest growth is found here. On the seacoast, the soil becomes sandy. An elevation of swampy land, which divides the streams of the Delaware from those of the Chesapeake, passes north and south through this State, at a nearly equal distance from the two shores. At the southern limit, is the Cypress Swamp, where this elevation terminates. In the extreme north, the soil is stony. Nearly the whole territory is alluvial, with little variation of surface. There are very few mineral productions in this State. The southern part affords much bog-iron ore, but little use is made of it.

POLITICAL GEOGRAPHY.

1. *Divisions.* Delaware is divided into three counties; Newcastle, in the north; Kent, in the middle; and Sussex, in the south. These are subdivided into 24 Hundreds. The population is 76,739, of whom 3,305 are slaves.

2. *Canal and Railroads.* The *Chesapeake and Delaware Canal* crosses the northern part of this State, uniting the two bays. It is 14 miles long, 60 feet wide, and 10 feet deep, with locks 100 feet in length, and 22 feet wide. It begins at Delaware city, 46 miles below Philadelphia, and passes westerly to Back Creek, a navigable branch of Elk River. The ***Deep Cut*** is the name given to the passage of this canal, for 4 miles, through a hill 90 feet in height, being the deepest cut upon any canal in the world. The ***Summit Bridge***, which crosses the canal at the cut, is a single arch, 255 feet in length. Here the sides of the canal are secured by walls of stone, and the high banks are in some places thatched with straw, to prevent their washing into the canal. East of this spot, the canal is carried through deep marshes; the foundation and embankments were executed at great expense. At every half mile are recesses for the passing of vessels, where the width of the canal is increased to 110 feet. At its junction with the Delaware, is an artificial harbor, or large basin, of a semicircular shape. This canal was begun in 1823, and completed in 6 years, at the cost of more than 2,000,000 of dollars. The ***Newcastle and Frenchtown Railroad*** also extends across the peninsula between the Delaware and the Chesapeake, 16¼ miles; steamboats connect the eastern terminus with Philadelphia, and the



Deep Cut, Delaware Canal.

western with Baltimore. A continuous line of railroad, connecting these two cities, has lately been constructed across the State, passing through Wilmington.

3. *Towns.* The largest town is the city of *Wilmington*, in the northern part of the State, between the Brandywine and Christiana, a mile above their confluence, and two miles west of the Delaware. It stands on a pleasant slope of ground, and is regularly laid out ; the houses are mostly of brick. The commerce of the place is considerable, and the river admits vessels drawing 14 feet of water to come up to the town. Several ships sail to the whale-fishery. There are two bridges over the Brandywine and Christiana. The surrounding country is pleasant, and, within a short circuit, contains 100 flour-mills and a large number of manufactories. Population, 10,000.

Dover is the capital of the State, and is situated on Jones's Creek, 7 miles from its entrance into Delaware Bay. It is a small, but regularly built town, consisting of four streets running at right angles. The houses are principally of brick. The State-house fronts upon a neat square in the centre of the town. Dover has a flourishing trade, chiefly in flour. Population, 1,500.

Newcastle, upon the Delaware, in the northern part of the State, was once the capital, and enjoyed considerable trade. *Delaware city* has been laid out at the mouth of the canal below.

4. *Agriculture.* Wheat is the chief article of cultivation. The flour made here is of a superior quality, and is highly esteemed for its softness and whiteness. Maize, rye, barley, flax, buckwheat, potatoes, &c., also receive attention. In the south, are some fine grazing lands, which support considerable numbers of cattle.

5. *Commerce.* There is little foreign commerce, but there is a considerable trade in the export of flour, and timber from the swampy districts of the south. The shipping amounts to 20,000 tons.

6. *Manufactures.* Though small in extent, and the smallest of the States in population, Delaware has important manufactures. The chief of these are at Wilmington and in the neighborhood, and are devoted to the making of cotton and woolen goods, paper, gunpowder, snuff, &c. Some of the largest and finest flour-mills in the country are in this vicinity. The manufacture of iron in the southern part was formerly extensive, but it has lately declined.

7. *Government.* A General Assembly, consisting of a House of Representatives and Senate, compose the legislature. The Senate has 9 members, elected every 4 years ; the House, 21 members, elected biennially. The Governor is chosen for 4 years. Elections are popular, and suffrage is universal. Delaware has but one representative in Congress.

8. *Religion.* The Methodists have 15 ministers ; the Presbyterians, 10 ; the Baptists, 9 and the Episcopalians, 6.

9. *Education.* Delaware has one college, at Newark, with 4 teachers, and 50 students. There is a common-school fund, belonging to the State, yielding a yearly revenue of 10,000 dollars. The income also of 25,000 dollars, invested in the Chesapeake and Delaware Canal, is appropriated to the purpose of education. In 1829, a law was passed, establishing a system of common schools.

10. *History.* The first settlement in this State was made at Fort Christiana, on the creek of that name, by the Swedes and Finns, in 1637, and the country for some time went by the name of New Swedeland. In 1655, the colony was subjected by the Dutch of New York, and after the conquest of that territory by the English, in 1664, it was annexed to the colony of New York. In 1682, it was granted, as before stated, together with Pennsylvania, to William Penn, but was separated from that State in 1701. The two colonies, however, were under one governor, with distinct legislatures, till 1776, when Delaware adopted a new constitution, vesting the executive power in a president and privy council. The present constitution was established in 1831.

CHAPTER XVI. MARYLAND.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* Maryland is bounded N. by Pennsylvania ; E. by Delaware and the ocean ; S. and W. by Virginia. It lies between 38° and 39° 44′ N. lat., and 75° 10′ and 79° 20′ W lon., and contains 13,800 square miles.

2. *Mountains.* The narrow strip of territory, belonging to this State, which extends to the west along the northern bank of the Potomac, is crossed by the Appalachian Mountains, but their extent is so small as not to require notice.

3. *Rivers.* The ***Potomac*** divides this State from Virginia ; it rises in the loftiest region of the Appalachian mountains, near the Alleghany ridge, and flows southeasterly into Chesapeake Bay. It is 550 miles long, and 7½ miles wide at its mouth. The tide water reaches 300 miles from the sea, and there is a good ship navigation for nearly the whole of that distance. Washington, Alexandria, and Georgetown are situated upon this river. Three miles above Washington the navigation is interrupted by falls.

The ***Susquehanna*** comes into this State from Pennsylvania, and empties into Chesapeake Bay. The ***Patapsco*** is a small river, navigable from its mouth to Baltimore. The ***Severn*** is another small stream, on which Annapolis stands, 2 miles from its mouth. The ***Patuxent*** is 110 miles long, and is navigable nearly half its course. All these rivers enter the Chesapeake from the west. On the opposite side are ***Chester River***, the ***Choptank***, and the ***Nanticoke***, which are navigated by small water craft.

4. *Islands.* The Bay of Chesapeake contains many islands within the limits of Maryland. ***Kent Island***, on the east side of the bay, opposite Annapolis, is 12 miles long. The ***Tangier Islands*** lie further down the bay.

5. *Bays and Harbors.* The northern half of ***Chesapeake Bay*** is contained in this State. The whole Bay is 270 miles in length, and from 7 to 20 miles wide, and generally 9 fathoms deep ; it is narrowest in the northern part. It contains many fine harbors, and is highly favorable to navigation.

6. *Climate.* The summers in this State are hot, moist, disagreeable, and unhealthy ; agues and intermittent fevers prevail, and the inhabitants have a sickly complexion. These remarks apply more particularly to the southern regions of the State, and especially to those parts on the eastern shore of the Chesapeake. As Maryland lies not only further south than Pennsylvania, but is also a lower, and more level country, it will be readily seen, that the winters must be considerably milder ; yet the Potomac at Washington is usually frozen in January. Throughout the whole State the weather is subject to sudden changes.

7. *Soil.* There is little rocky territory in the State, but there are many tracts of thin, unproductive soil. Much of the land, however, is well adapted to the culture of wheat and tobacco. Kitchen vegetables, in great perfection, are produced in the vicinity of Baltimore.

8. *Geology and Minerals.* The eastern plain consists chiefly of tertiary beds of clay and sand, in some places highly fossiliferous, in others quite destitute of organic remains. The beds of shell-marl are, in an economical view, the most important of these deposits ; they occur in the central eastern, and lower western counties, and consist of shells of different kinds, imbedded in clay and cemented together by a calcareous or argillaceous cement. This substance affords the farmer an invaluable dressing for his land, those beds which contain the clam with a calcareous cement being the best adapted for this purpose. The masses of oyster-shells found at the mouths of many of the rivers, and sometimes from 6 to 8 feet in depth, and several hundred yards in length and breadth, and called by the inhabitants Indian shell-banks, and the oyster-rocks of Sinepuxent Bay, although not geologically connected with the shell-marl, and in no respects fossilized, deserve to be mentioned here on account of their application to the same economical use. A belt of the upper secondary series, extends across the State, through Cecil, Kent, Ann Arundel, and Prince George's counties, of the same age as the New Jersey greensand formation, and possessing the character of the greensand marl. The bog-iron ore of Dorchester, Caroline, and Worcester ; the hone ore, brown ore, and brown oxides of a belt forming the western border of the Plain ; the valuable clays adapted for the manufacture of stone ware, common pottery, glazed ware, and fire-bricks ; alum earth, copperas ore, red and yellow ochres, are among the useful minerals of this region. West of the Plain, extends a belt of primary rocks of the stratified series, comprising gneiss, mica-slate, hornblend rock, limestone, serpentine, chlorite, and clay slates, &c., passing on the west into rocks of the grauwacke group. Chromiferous ores, magnesian earth, yielding Epsom Salts, porcelain earth, lime, marble, manganese, copper ore, &c., occur in this tract, beyond which we find a repetition of the geological formations of Pennsylvania. Iron, coal, and lime, constitute the mineral wealth of the western counties. Pipe ore occurs in the valley beyond the Blue Ridge, and the coal-measures of Alleghany county comprise beds of nodular and hematitic iron ores. The Frostburg coal-field extends from Pennsylvania through Maryland into Vir-

ginia, a distance of about 30 miles, with an average breadth of 6, and an area of nearly 200 square miles. The coal lies in a trough between Dan's and Savage Mountains, and occurs in numerous beds, alternating in the lowest portion of the deposit with slates, shales, bands of iron ore, and slate clay, and in the upper parts with strata of shale, sandstone, and limestone. Beyond the Back Bone is the Youghiogany or Yohagany coal-field, where there are coal-seams 20 feet thick. The iron ore beds in some instances alternate with the coal strata, and the ores belong to the argillaceous carbonate, and red and brown hematites.

POLITICAL GEOGRAPHY

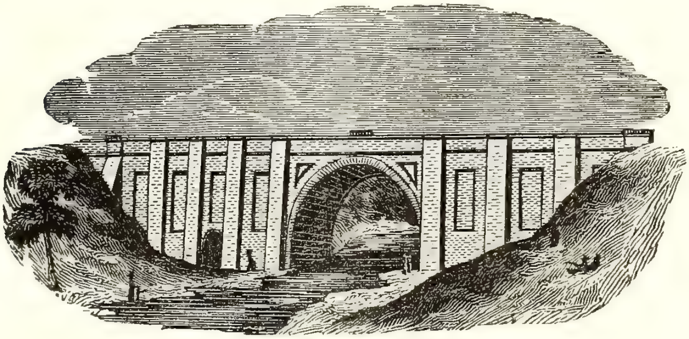
1. *Divisions.* Maryland has 20 counties,* and in common language is considered as comprising 2 great divisions, separated by the Chesapeake, viz. the ***Eastern Shore***, and the ***Western Shore***.

Population at different periods.

	Whites.	Slaves.	Free Colored.	Total Colored.	Total Pop.
1790 . .	208,649	103,036	8,043	111,079	319,728
1800 . .	216,326	105,635	19,587	125,222	341,548
1810 .	235,117	111,502	33,927	145,429	380,546
1820 . .	260,222	107,398	39,730	147,128	407,350
1830 . .	291,108	102,994	52,938	155,932	447,040
1840 . .					

2. *Canals.* The *Port Deposit Canal* is 10 miles in length, passing along the Susquehanna. The *Chesapeake and Ohio Canal* is designed to unite the Potomac at Washington, with the Ohio at Pittsburg. It will be 340 miles long, and 60 feet wide. Its course is along the northern bank of the Potomac, and it is nearly completed to Cumberland, 185 miles.

3. *Railroads. The Baltimore and Ohio Railroad* is designed to extend from Baltimore to Wheeling, 360 miles. A mile and a half from the city is the *Carrollton Viaduct*, 312 feet in length, and 40 feet high, built of granite, with an arch of 80 feet over a stream running into the Patapsco. Two other viaducts are in the same neighborhood, one of which is 375 feet long, and crosses the Patapsco on 4 arches. When this great work is finished, the whole distance from Baltimore to Wheeling will be traveled in 20 hours. The Carrollton viaduct is shown in the annexed cut. A branch of this road extends to Washington, 32 miles, and a viaduct across the Potomac at Harper's Ferry, connects the main line with the Winchester Railroad. The work is now nearly completed as far as Williamsport. The *Philadelphia and Baltimore Railroad*, 93 miles in length, extends within this State, from Baltimore to Havre de Grace, where the Susquehanna is crossed by a steam ferry-boat, and thence to Delaware towards Wilmington, a distance of 53 miles. The ***Baltimore and Susquehanna Railroad*** extends from Baltimore up the Great Falls of Gunpowder, and down the Codorus to York, in Pennsylvania, 60 miles, whence it is continued to Columbia by the York and Wrightsville Railroad, 13 miles. The *Annapolis and Elk Ridge Railroad*, 20 miles, is in progress.



Carrollton Viaduct.

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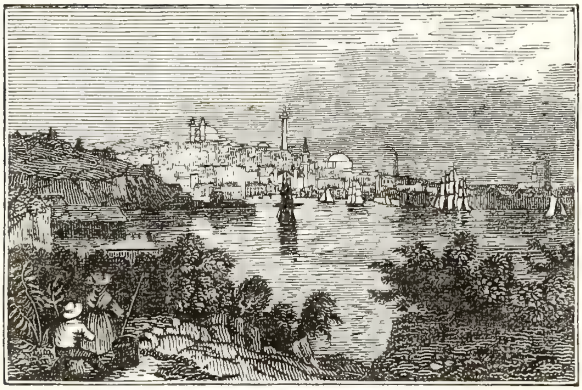
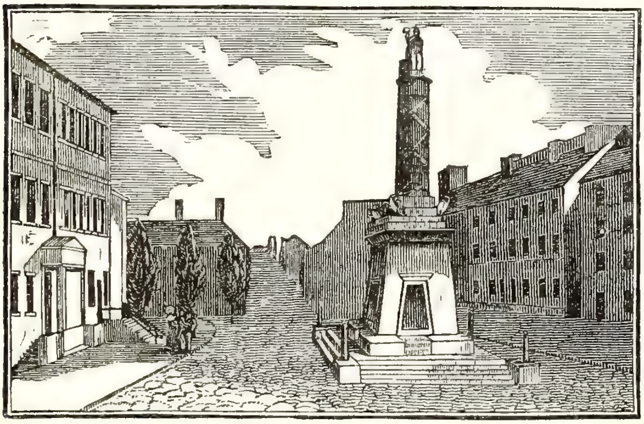
* *Eastern Shore.*
Caroline
Cecil
Dorchester
Kent
Queen Anne
Somerset
Talbot
Worcester
Western Shore.
Alleghany
Anne Arundel
Baltimore
Calvert
Carrol
Charles
Frederick
Hartford
Montgomery
Prince George's
St. Mary's
Washington.



View of Baltimore.



Battle Monument.

4. *Cities and Towns. Baltimore*, upon the Patapsco, 14 miles from the Chesapeake, is a large city, and the chief commercial mart for all the country upon the bay and its waters. It is finely situated, and regularly built, chiefly of brick ; the public buildings and monuments indicate by their splendor a high degree of wealth and enterprise in the inhabitants. The Catholic Cathedral is an edifice in the Ionic style, 190 feet long and 177 wide, surmounted by a dome and cross, which rise to the height of 127 feet. It has some fine paintings, and the largest church organ in the United States, containing 6,000 pipes. The Merchants' Exchange is 255 feet in front, and contains a hall, 86 feet in length, lighted from a dome, 90 feet above the floor. St. Paul's church, the Unitarian church, the Court-house and the Union bank are also elegant buildings.

Two splendid public monuments particularly attract the attention of strangers. *The Washington Monument* consists of a base 50 feet square and 23 feet high, supporting a column, 20 feet in diameter at the base, and diminishing to 14 feet at the top ; on the summit rests a colossal statue of Washington, at a height of 163 feet from the ground. The *Battle Monument* commemorates the defeat of the British, in their attack on the city, in September, 1814 ; it is 55 feet high. Both of these monuments are of white marble. There are several handsome public fountains, which furnish a copious supply of pure water. The trade of Baltimore is great, and it may be considered the best flour market in the world. In commerce it is the third city in the United States. The harbor is good, although vessels larger than 200 tons, cannot ascend below the lower suburb, called Fell's Point ; this is separated from the city by a small stream, over which there are several bridges. The shipping of Baltimore amounts to above 60,000 tons. There are, within 20 miles of the city, above 60 flour mills, one of which has ground 32,000 barrels in a year ; within the same space, there are also numerous cotton manufactories, and various others of cloth, powder, paper, iron, copper, glass, steam-engines, chemicals, tobacco, &c.

Baltimore has 2 colleges, 60 churches, 2 theatres, hospital, city hall, &c. It was founded in 1730, but for 20 years it could boast of no more than 25 houses and 2 vessels. Since the Revolution, however, it has grown with astonishing rapidity, and now contains 100,000 inhabitants. The neighborhood is pleasant, and the land rises in successive elevations, affording variegated and extensive prospects.

Annapolis, on the western shore of the Chesapeake, below Baltimore, is the seat of government. It has a harbor formed by the river Severn, and is a handsome and regular city, with streets diverging from a common centre, occupied by the capitol, a large and handsome edifice, containing the State library, of 10,000 volumes. It is not, however, a place of any trade. Population, 3,000.

The city of *Frederick*, near the centre of the State, is pleasantly situated and regularly built. It has a considerable trade in flour and grain. Population, 6,000. *Hagerstown*, in the northern part, is a place of some trade, with a fertile and productive country around it. Pop ulation, 3,500. *Williamsport* and *Cumberland* are small but flourishing villages on the Potomac, in the western part of the State.

5. *Agriculture.* Agriculture is the principal occupation of the inhabitants. Indian corn and wheat are the agricultural staples of the Eastern Shore, but the latter, under the present system of cultivation, is so precarious a resource, that the former may be said to be the most important product. The same articles, with tobacco, are the staples of the western section, and on the newly cleared lands of the mountainous district, where the cultivation of tobacco has lately been commenced, the bright leaf staple is produced. The fine tracts in this district, called the Glades, are broad, moist valleys, forming productive meadows and luxuriant pastures. Of 34,105 hogsheads of tobacco inspected in Baltimore in 1836, 24,930 were of the produce of the State ; the flour inspected in the same city that year, amounted to 516,600 barrels and 21,333 half-barrels, together with 1,405 hogsheads and 4,301 barrels of Indian meal, and 4,807 barrels of rye flour. Rice and cotton have been raised in the southern counties, but only in small quantities, and the palma christi or castor-oil bean is found to thrive.

6. *Manufactures.* The manufactures of Maryland are various and pretty extensive, though less so than in the more northern States ; our information in respect to the amount and value of the products is extremely meagre and unsatisfactory, but they include cotton and woolen goods, iron ware, sheet copper, leather, pottery, and stone ware, paper, gunpowder, glass, chemicals, &c. The number of cotton-mills is about 30, with upwards of 60,000 spindles, producing annually 1,500,000 pounds of yarn, and 10,000,000 yards of cloth. There are some woolen factories, producing broadcloths, cassimeres, satinets, carpets, &c. There are annually produced in the State 1,200,000 pounds of Epsom salt, made from the magnesian earth associated with serpentine ; chrome yellow, of the value of 50,000 dollars ; 50,000 pounds of blue vitriol from the black earth of the Monocacy valley, which is a mixture of sulphuret of copper, iron ore, and manganese ; red and yellow ochre, of the value of 2,000 dollars ; copperas, of the value of 6,000 dollars ; 75,000 dollars worth of alum, and 50,000 dollars worth of fire-brick. Pottery, stone ware, and glazed ware are exported, and other branches of manufacturing and mechanical industry are successfully prosecuted.

7. *Commerce. Fisheries.* The herring, shad, and oyster fisheries are actively carried on, and yield valuable returns, constituting an important article of trade as well as of home consumption. There were inspected in Baltimore in 1835, 40,711 barrels and 908 half barrels of herrings, 5,505 barrels and 287 half barrels of shad, and 1,662 half barrels of mackerel. The commerce of Maryland is extensive, and her ports serve as the outlets of large tracts of productive country in Virginia, Pennsylvania, and the Western States, whose consumption is also in part supplied through the same channels. The direct imports from foreign countries amount to 6,000,000 dollars ; the exports to 4,500,000, and the coasting trade, consisting in the exchange of northern manufactures and foreign articles imported directly into northern ports, for the agricultural produce of this and the neighboring States, is also extensive. The shipping owned in the State amounts to 110,000 tons. Lumber, marble, granite, feathers, clipper-built vessels, &c., are to be added to the list of exports.

8. *Government.* The legislature consists of a Senate and House of Delegates. The senators are chosen for 6 years, by electors, who are chosen by the counties and the city of Baltimore. The delegates are elected annually. The Governor is chosen by the people for three years. Suffrage is universal. Maryland sends 8 representatives to Congress.

9. *Religion.* The Roman Catholics are numerous in this State, and they have an archbishop, who is the metropolitan of the United States ; their churches amount to 60. The Episcopalians have 60 preachers ; the Presbyterians 25 ; the Baptists 20 ; the German Reformed 9. There are also Methodists, Unitarians, Swedenborgians, Lutherans, Friends, &c.

10. *Education.* The *University of Maryland* grew out of a medical college at Baltimore, and received its charter in 1812. It has 11 instructers. St. Mary's College at Baltimore, is a Catholic institution, founded in 1799 ; it has 25 instructers, 200 students, and a library of 12,000 volumes. The college at *Mount St. Mary*, near Emmittsburg, is also a Catholic institution, and was founded in 1830. It has 25 instructers, 130 students, and a library of 7,000 volumes. *St. John's College*, at Annapolis, was founded in 1784 ; it has 7 instructers, 100 students, and a library of 2,100 volumes.

11. *History.* Maryland was first settled by Catholics. That sect being persecuted in England, Lord Baltimore, one of its members, formed a plan to remove to America. He visited and explored the country, and returned to England, where he died while making prepa-

rations for the emigration. His son obtained the grant of the territory designed for his father, and gave it the name of Maryland, in honor of Henrietta Maria, the Queen of Charles the First. He appointed his brother, Leonard Calvert, governor of the colony, who set sail in 1633, with 200 settlers, principally Catholics. They purchased land of the Indians, and formed a settlement at St. Mary's, on the Potomac. The colony was increased by refugees from Virginia, and the other neighboring territories, who were attracted by the toleration here given to all religions, and it began to flourish, but was soon disturbed by Indian wars and rebellions. The Catholics were tolerant to other sects, but soon found themselves outnumbered, and became subject to the persecution which they had fled from at home. These troubles, however, were allayed at the restoration of Charles the Second, in 1660. At the revolution of 1688, the charter of the colony was set aside, and the government assumed by the crown; but in 1716, the proprietor was restored to his rights. At the beginning of the American Revolution, the authority fell into the hands of the people. The existing constitution was formed in 1776, but was modified in 1833.

CHAPTER XVII. GENERAL VIEW OF THE SOUTHERN STATES.

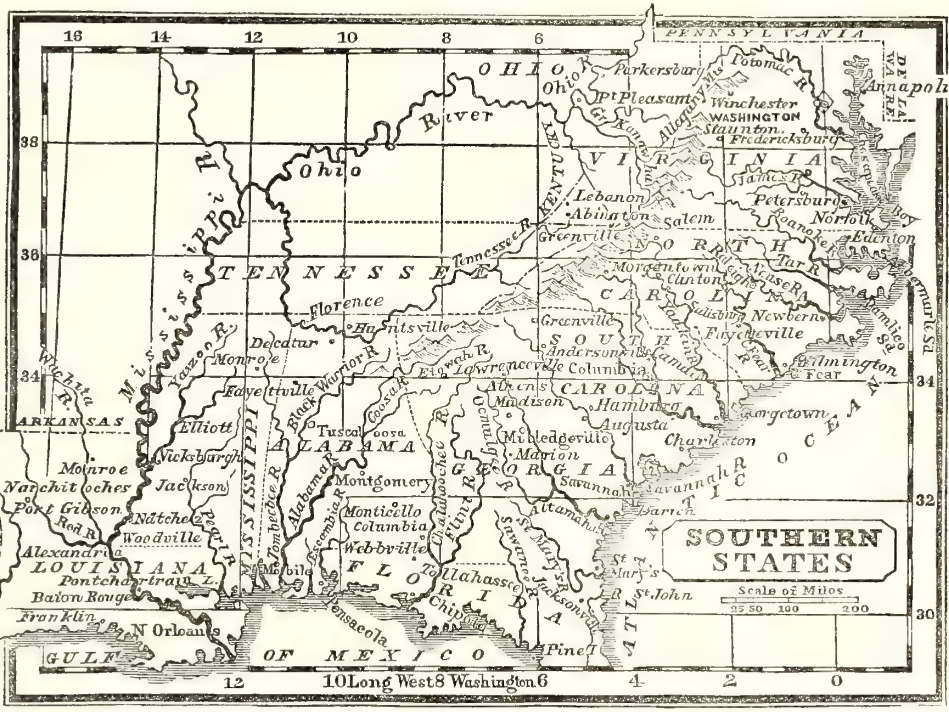
Cotton Plant.

1. ***Boundaries and Extent.*** The seven States next to be described, viz. Virginia, North Carolina, South Carolina, Georgia, Alabama, Mississippi, and Louisiana, are known by the general designation of the Southern States. Their boundaries, including the Territory of Florida, may be described, in general terms, as the Potomac, the Ocean, the Gulf of Mexico, the Mississippi, the Sabine, and the State of Tenessee; lying between 25° and 40° 30′ N. lat., and extending from 75° to 94° 30′ W. lon., with an area of 412,000 square miles, and a population of 5,000,000, comprising 2,000,000 slaves.

2. *Mountains.* The mountainous parts lie chiefly in the north, and these are mostly in Virginia. South of Virginia, the mountains form the northwestern limit of these States, and disappear in the northern part of Alabama.

3. *Rivers.* Most of the rivers flow through a level country. Their currents are sluggish, and their mouths generally barred with sand. With the exception of the streams in the western part of Virginia, which flow westward into the upper portion of the Missisippi valley, all the

ivers of the Southern States flow southerly or easterly into the Atlantic, or, Gulf of Mexico They mostly have their origin in the elevated region of the Appalachian Mountains.



4. *Bays, Sounds, &c.* The largest are in the northern part of this region. *Chesapeake Bay* is the deepest and most convenient for navigation in the country. Southward of *Pamlico Sound*, there are no large bays on the Atlantic ; the coast is uniform to the Gulf of Mexico. The largest navigable bay in this quarter, is that of Mobile. The lakes of Louisiana are shallow, and little available for the purposes of navigation.

5. *Shores and Capes.* Every part of the coast is low and flat, without a single lofty headland, to warn the navigator of his approach to the land. The capes of North Carolina do not project far into the sea, but they are beset with shoals, and are the most dangerous spots upon our coast, south of Nantucket. The peninsula of East Florida may be considered as an immense cape, and much the largest in the United States. The Mississippi has formed at its mouth, by the mud brought down in its waters, a cape 40 miles in extent, the extreme point of which is called the Balize, through which the river passes into the Gulf of Mexico.

6. *Climate.* In the northern and mountainous parts, the climate is temperate and healthy ; but the far greater portion of this territory may be characterized as subjected to a climate, hot, moist, and insalubrious.

7. *Soil.* Some of the richest soils in our country are in the Southern States. Almost all the good lands are alluvial ; their peculiarities are elsewhere described. The poor soils are commonly sandy, and these tracts occupy the greatest portion of the surface.

8. *Minerals.* Over so great a tract, the minerals are, of course, various ; yet there is less diversity than might be expected, on account of the great uniformity of the geological formations. Coal, iron, lime, and salt abound in different districts ; good marble, granite, freestone, slate, and valuable clays also occur ; but little attention has hitherto been paid to these sources of wealth. Gold is found from the Potomac to the sources of the Alabama, in the hilly district at the eastern foot of the Blue Ridge. Some mines have been worked, but the precious metal has been chiefly obtained from washings, or deposit mines, having been transported from its native beds by running water. In some cases, large returns have been made for the labor and capital employed ; but in many, great losses have been sustained. Some large lumps of virgin ore have been found here, one of which weighed 28 pounds. Some of the gold has been sent to the mint and coined, some has been manufactured, and some, either cast into small plates or put up in quills in a state of dust, passes current in the gold region, instead of the coin of the country.

9. *Vegetable Productions.* It is in these States, that the productions of nature exhibit the greatest luxuriance and variety. Here may be seen the magnificence of the primitive forests, and the exuberant vegetation of the marshy alluvion. The shores of Carolina, Georgia, and Florida, offer to the eye a succession of groves, which seem to float upon the waters. The forests of yellow pine have already been noticed. The cypress swamps are gloomy, inaccessible regions. The cypress tree has a trunk formed of 4 or 5 enormous buttresses, which, rising from the water, unite at the height of 7 or 8 feet, and produce a straight, tapering shaft, 60 or 80 feet in height. At the top, it throws out horizontal branches, which interlace with the adjoining trees, and are covered with a foliage of the deepest green. A cypress forest at a distance, looks like a scaffolding of verdure in the air.

The palmetto is a beautiful tree, and may stand for the personification of grace, as the live oak may for that of strength. The trunk often rises to the height of 50 feet, and it hardly decreases in size even at the top. This is a pendent and thick cluster of glossy, fan-like leaves, more than 4 feet long, and nearly as wide. A few of the upper ones, are upright, but the rest hang down like the twigs of a willow, and wave gracefully like long hair in a gentle wind. A close cluster of these palmettos, of an uniform height, resemble, at a distance, the pillars and entablature of a dilapidated temple.

The live oak is a fit emblem of strength. The leaves are very small, but the moss gives an appearance of double foliage. This moss is of a venerable gray, and hangs from the branches many feet. The trunk of the live oak is seldom straight or tall, and the tree seems rather to run into horizontal branches, which cover a great space. The knees of this tree make the best timber for ship-building. The live oak is altogether a tree so singular in its shape and robe of moss, that a stranger will pause long to examine it.

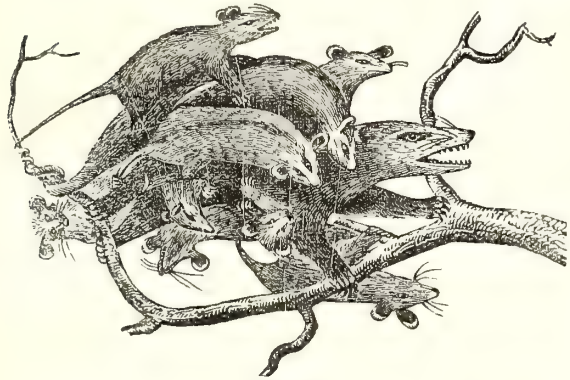
The big laurel, or magnolia, has been much admired for beauty, but it has not been too much praised. It rises in a tall and smooth stem to a great height, but it is the leaves and flowers which give it all its beauty. The leaves are of a deep and glossy green, 6 or 8 inches in length, and 3 inches broad. There is no leaf in the New England forest, that will compare with that of the laurel. The rich white flowers are scattered over the tree, in profusion. They are of a dazzling white, several inches in diameter, and have a resemblance to the pond-lily. To this flower, succeeds a crimson cone, which, in opening, exhibits rounded seeds of the finest coral red, suspended by delicate threads. The tree is often more than 100 feet in height.

The red bay, with its aromatic leaves, is a noble tree, attaining the height of 70 or 80 feet. The mangrove is peculiar to this part of the country. The white mangrove grows in swamps, to the height of 60 or 70 feet, and the black is found along the coasts and on the keys, where its branches, shooting downward, and taking root in the mud, form new trees, impenetrably interlaced with each other. The lignumvitæ, mahogany, and some other tropical trees, are found only in the southern parts of Florida.

The dogwood is a large shrub, covered in spring with a profusion of brilliant white flowers, and in autumn, with berries of a fine scarlet. It is found from Pittsburg to the Gulf of Mexico. The persimon is another large shrub, with a fruit of remarkable astringency, when green. The cotton-wood is a sort of poplar, with a trunk sometimes 12 feet in diameter. It bears in its blossoms a downy substance like cotton. The catalpa is indigenous to Louisiana. The paw-paw, or Indian fig, the Chickasaw plum, prairie plums of various species, and grapes of many sorts, are found native in these States. The Cherokee rose (*rosa multiflora*) twines itself around the tallest trees, and adorns their foliage with festoons of its beautiful flowers. The lakes and rivers produce an aquatic vegetation, which has given rise to the fiction of floating islands. The leaves and delicate white flowers of the *pistia* float upon the surface, and are attached to the bottom by a twiny stem many yards in length. The bow of a vessel makes a furrow through fields of this floating vegetation, while fishes are darting, and alligators gamboling, in the depths beneath. The *nymphœa nelumbo* is the prince of the flowering, aquatic plants. It rises from a root resembling the large stump of a cabbage, and grows sometimes in 10 feet depth of water. It has a smooth, elliptical leaf, often as large as a parasol. The flowers are a foot in diameter, and have all the brilliant white and yellow of the New England pond-lily, but are devoid of its fragrance.

The cane-brakes are another remarkable feature in the vegetation of this region. The cane grows upon the low grounds, and in a rich soil. It sometimes almost equals the bamboo in size. Its seed is farinaceous, and often used for bread. Its leaves are long and dagger-shaped, and a thick cane-brake forms an impervious roof of verdure in the air, which has the appearance of a solid layer. A cane-brake is almost impenetrable by man, but is a favorite resort of bears and cougars. When the canes are cut and dried, the negroes enjoy a high amusement in setting fire to them; the rarified air in the hollow compartments of the cane, bursts them with a report like a discharge of musketry, and the burning of a cane-brake sounds like the roar of a battle. The land thus burned, is in excellent preparation for maize.

10. *Animals.* The Virginia deer is common in the wooded parts of all the Southern States, and is particularly abundant in Louisiana. The American elk is sometimes, though rarely, met with in the southwestern portion. The bear, wolf, and cougar are occasionally found. Red and gray foxes are abundant. Besides these, the following quadrupeds are found in the Southern States: the raccoon, opossum, Maryland marmot, skunk, hare, otter, mink, fox-squirrels, together with the other species of squirrels, already mentioned. The bison does not extend its migrations as far south as Louisiana, and is not found east of the Mississippi. The pouched rat is to be seen in great numbers in Florida and Georgia. Their burrows are numerous in various places. The cotton rat is found in East Florida, where its burrows are frequent in deserted plantations and gardens. It makes its nest of cotton. The wood rat is also found in Florida.



Opossum.

Skunk.

Mocking-birds defending their Nest.

The alligator is common in the rivers, lakes, and swamps of the more southern regions, and there is a small and harmless species of lizard, called the striped lizard, which often intrudes into houses, feeding on flies. The swift, another species of lizard, and the Florida chameleon are peculiar to this region. The peculiar birds are the Carolina parrot, the turkey buzzard, the carrion crow or black vulture, the pelican, flamingo, gallinule, ibis, several herons, and the darter or snake-bird, which have been before described, under North America. The mocking-bird is abundant in the more southern States, and Audubon states, that it is often obliged to defend its nest from the attacks of serpents, which it does with spirit and effect Most of the other birds of N. America frequent these States in winter, but migrate to the north in summer. Several species of sea-turtle are found on the extreme southern coast, much prized as articles of luxury or economical use; such are the famous green-turtle, so greedily sought by gourmands, and the hawk-bill, whose shell is much valued for combs; the snapping-turtle of the lagoons, and the soft-shell turtle of the lakes, also make very good food. The collection of the turtle eggs on the Florida keys and shores furnishes profitable employment to many hands; they are used for making oil. Indeed, *turtling* forms so important a branch of southern industry, that a

turtle-crawl is considered an essential appendage to a house, as much so as a barn to a northern farmer. The crawl is a pen, made where the water is about 2 feet deep at low tide, by driving mangrove poles into the ground ; the tide flows freely about the turtles. and they are fed with purslain or sea-grass.

11. *Inhabitants, Races, Classes, &c.* The population is mixed, though it is principally of English descent. There are, however, not only descendants of the French, Spanish, Germans, &c., but separate settlements of the original foreigners. There are inhabitants also, of every European people who ever migrate to America. The negroes not only form a considerable portion of the population, but a separate class ; for the most of them are held in slavery. They are principally natives of the country, though there are many imported Africans. The Indians are a few Nottaways and Catawbas, in Virginia and South Carolina ; some Chickasaws in Mississippi and Alabama ; the Seminoles and others, in Florida ; and various small tribes, chiefly the Appalachies, Alabamas, Pascagculas, &c. in Louisiana.

12. *Dress.* The modes of dress are generally the same that prevail in the other sections, though at the South, the materials are lighter, and the hats of broader brim.

13. *Language.* The English is not the universal language ; German, French, and Spanish are used in several settlements ; and in Louisiana, the laws and newspapers are printed in both English and French.

14. *Mode of Building.* The manner of building is less substantial than in the Middle or Northern States. Few country houses are of brick, and the low country is without stones. What was said by Jefferson, of Virginia, may have a wider application, — "that the genius of architecture seems to have shed its malediction over the land." In Virginia the public buildings are chiefly churches, and court-houses ; but they are without pretensions to elegance. The old churches, built under the colonial government, of imported bricks, are generally neglected and dilapidated. Throughout the Southern States, the houses of the planters have much uniformity. They are of one or two stories, and have a veranda in front, and chimneys at the end, on the outside. The kitchen, and other offices are in separate buildings, in the rear. The negro houses have chimneys, and two rooms, and the poorest of them are better than the cabins in Ireland, or the Highlands of Scotland. There are also, in some parts, many log-houses, which are common with both whites and blacks. There are numbers of country houses, capacious, and in good taste, but the most of them are without elegance. In passing rapidly in a steamboat, the buildings on a plantation have the appearance of a village. They are often whitewashed or painted. In front is the proprietor's house ; on either side, and in the rear, are the hospital, the carriage house, the kitchen, and the store houses, and in the rear, a double line of negro dwellings.

Captain Hall had, at Columbus, in Georgia, an opportunity of seeing the architectual embryo of a village in the woods, where the inhabitants had collected before the lots were sold for the buildings, and where but few dwellings were actually raised. The houses were, some of them, on low wheels, to be the more easily removed. Sixty frames, built by carpenters, on speculation, were lying on the ground, ready to be put up as soon as the sale of the land was completed. Stagecoaches, wagons, carts, and gigs were there in numbers, and many people who came in them, were encamped in the forest. Nine hundred were there, and by the day of sale, several thousand.

15. *Food and Drinks.* There is a considerable difference between the food in the Southern States, and that in the Northern. In the former, there are few of the garden vegetables, and the Irish potatoe is not generally raised. Rice is much used, chiefly boiled, and it is often eaten as bread. Hominy is a preparation of Indian corn, which is coarsely broken, and boiled ; it is found at all tables. Yams, or sweet potatoes, tomatos, and okra, are favorite vegetables. Hoe-cake, which is the johnny-cake of New England, and ash-pone, a coarse cake, baked under the ashes, are in common use, as bread. Ham is a general article of food. and the

traveler will often find it set before him three times a day. In Virginia, it is, at dinner, a standing dish, accompanied by greens. In Louisiana, *gumbo*, a compound soup, is much used, and at New Orleans, it is sold in the streets.

Whisky is more used than any other intoxicating liquor, and there is much of it consumed. The poorer class of the whites are less temperate than the same grade in New England and the Middle States. Peach brandy, and apple brandy are common, and in many parts, cider, beer, and porter ; imported spirits are used in the cities, and the rich bestow much care and expense upon their wines, which are chiefly sherry and madeira, except in Louisiana, where claret is more used. In the Southern States, where the ague is so common and troublesome a malady, where fogs are frequent, and dews heavy, it has grown into a custom to fortify the body from the attacks of the disease, by means of juleps, or what are called *antifogmatics*. A *fogmatic*, is a dram of any ardent spirit; but the julep is made by breaking into the raw liquor a sprig of tansey, or several kinds of mint. In the cities, the custom is, perhaps, "more honored in the breach, than the observance ;" but in the country, under certain local modifications, it is a general and daily practice to indulge in these drams. At the hotels of New York, Philadelphia, and Baltimore, mint juleps, which were first introduced from the South and West, are now regularly furnished to all who call for them. They consist of spirits, sugar, and mint, with small pieces of ice. They are mixed by being poured rapidly, and for a considerable time, from one tumbler to another.

16. *Diseases.* The most general diseases, are the bilious and intermittent fevers. They are the scourge of all the low countries, from the Potomac which flows into the Atlantic, to the Sabine which enters the Gulf of Mexico. From many districts, all the white inhabitants who have the means, remove at the approach of summer, and return not till after a frost. Those who remain, are sallow, slender, and feeble. The yellow fever is a desolating pestilence at New Orleans, but it is seldom very destructive in other cities. The negroes are not sickly in summer, except on the rice plantations, where they work much in the water ; but in winter many of them die of pulmonary complaints.

17. *Traveling.* Persons who travel in the Southern States, go chiefly for business o health, for few would travel for pleasure. The three great requisites for agreeable traveling are wanting ; — good roads, good vehicles, and good inns. The roads are often alternations of sand and swamp ; and in a swamp, where a good road could not be made but at vast expense, trunks of trees are laid across, over which the vehicle bounces without ceasing. These are called *corduroy* roads, and they are often under water. The public vehicles are not often easy or comfortable, and the better way of traveling is on horseback.

The inns are of very humble pretensions, and slender accommodations. In several States, the charges are regulated by law. The country is thinly inhabited, and the traveler seldom fares better than upon the usual food of the common people ; and this, in its best form, is bacon, eggs, hominy, and yams. In many districts, inhabited by wealthy planters, the hospitality is such that there is little need of inns. Any decent traveller is received, and generally, as if he were conferring upon his host a favor. In districts less wealthy, almost every house receives the traveler, at a moderate compensation. An Englishman, (and not the most gracious even among his class,) who has passed over the Southern States, and partly by an unfrequented route, writes thus, — "hospitality we were sure to meet with in every corner, no matter how remote." On the rivers there are steamboats, and the South has many noble streams, but these are generally too low in summer. The charges in them and in stagecoaches, are higher than in the other sections ; but generally the boats are less commodious, as they carry merchandise and produce, as well as passengers.

18. *Character, Manners, &c.* In the southern section there are some traits that run through all the States, though these are somewhat modified by various causes. The most obvious and general modification of character, is that which is made by the system of domestic slavery. All intercourse between unequal parties must have, to say the least, authority on the one side, and submission on the other. These are correlative ; and if the authority should be carried to despotism, the submission must end in an entire surrender of will, and prostration of conscience. The soul will sink to its condition : and to be a slave, is not only to toil without reward, but to deceive, to lie, and to steal without shame.

But the more odious characteristics of a state of slavery are not often found in the Southern States ; for the system has there almost every mitigation that is consistent with security. The slaves are, for the most part, contented and cheerful ; their greatest evils are those which they do not feel; that is, the moral ones, which condemn their whole race to ignorance and degradation.

In describing the character of the people, we refer principally to the planters, who have the most influence in forming the state of society. The inferior cultivators, or those who have no slaves, are in some parts of a grade hardly above that of the slaves themselves; but in the upper country, or in the northern portion of the section, and some other districts, they are a more respectable class. All are agricultural, for they have little commerce, and few manufactures. In different States these are called foresters, or *crackers*, from an imputed custom of cracking their whips when they arrive in their wagons at a town or inn. They are ignorant, but they can generally read, though their houses contain little to be read, except newspapers and Methodist tracts. They live within themselves, and consume little that they do not raise or manufacture, except sugar. They are not unsocial; they grow up with more individuality of character, than men have who live in towns, where the particular character is sometimes merged in the general one. They are sallow, and though it would be unjust to call them ugly, they are certainly not distinguished for beauty. What the French call the *devil's beauty*, or youth and health, even this they seem to have not. The young look old, and the old are not lightly marked with the trace of years.

Perhaps the character of Virginia and South Carolina is in some respects superior to that of the other Southern States; yet the principal traits are common to all. In Virginia, many of the old English habits of life are retained, and the domains of the landed proprietors have the extent of English baronies. The country residences have particular names, as Hunter's Hill, Mount Pleasant, Monticello, and Mount Vernon. The people seldom travel beyond the few places of resort within the Commonwealth; they are therefore more attached to their home, and to all the things which make up the complex idea of home. They are, of course, strongly marked in character, but not unfavorably. They are hospitable, to a degree unknown in New England, generous, and honorable.

The people of Carolina, who dwell in the lower country, are annually compelled to leave their homes, however attached to them. None can travel without gaining knowledge, and losing prejudices, and the Carolinians are to a great degree, liberal and intelligent. To remain in summer on the plantations, is at the risk of life; and they are therefore found at that season, in the Northern and Eastern States, and in Europe. They are social, and in general closely united. In New England, gentlemen of neighboring towns are often unacquainted with each other; but in Carolina, the acquaintance extends over the State. This arises from the intercourse of the capital, where all are found in spring, and from the fellowships that are formed in packets, or while residing or traveling in other States.

It may be thought, that the life of a southern agriculturist is one of indolence and ease. It is the very reverse; it is one of far greater activity than is led by gentlemen of wealth elsewhere. The cares of a plantation are sufficient to consume the day, and the planter is often on horseback in his fields till evening. His notions of space are so liberal, that he will readily ride a dozen miles to dine, and he engages in the chase with his characteristic ardor. No men ride so fearlessly; and the game is followed at full speed in thick woods, among holes, horizontal branches, and prostrate trunks. The social relations are admirable. The season for visiting is never over, and as the social is as much increased as any other principle, by cultivation, here it attains to its best growth. There is, among relatives, great kindliness of feeling, and the circle it embraces is wider than in New England. Any one may, as far as affinity can be traced,

> "Claim kindred there, and have his claim allowed."

Gentlemen meet at frequent intervals in club houses, often built in the woods, where the entertainment is furnished by each one in turn.

The people of the South have more haughtiness, courtesy, and a higher estimation of personal dignity, than those of the North. Pride is the natural consequence of superiority of station, though it is generally incompatible with meanness. A planter would be more apt to do what he would be sorry for, than what he would be ashamed of. A slight wound of pride is more strictly avenged, than a greater injury to property; and a lack of courtesy is, perhaps, as much reprobated as a breach in morals. Duelling is the natural growth of such a state, and though it is not frequent, it is but too well established by custom. The challenged is held to fight, even if he feel no resentment, or has done no injustice; and he sometimes perils his life for mere expediency; as he would put it to some risk to preserve his property, he is led to believe that he must do it also to save his character.

In Louisiana, the state of society is somewhat different from that of the other States. It receives its character from the French, and is perhaps more gay, if not more dissolute. There is more gaming, more dueling, and less education. The planters are exceedingly hospitable, generous, and fond of amusement, though somewhat haughty and passionate. The French and American parties are so nearly balanced, that there are frequent struggles for ascendency. The following extracts are descriptive of the state of society and manners in some of the Southern States. The first is from the New England Magazine, and the last, from "Letters from the South and West."

"The Carolinean is widely different from the Yankee, but I know not that he is better. If he have not our faults, he may not be the possessor of all our virtues. I did not remain in his country long enough to see many of his faults ; and, to be just, he has very few that appear in his conduct to his friends, though he is held to be rather intractable to his enemies. He has, in his carriage and feelings, something of the Don ; yet he is republican, and would not exact from another what he would be unwilling to render in return. Be generous and confiding, and he will out-do you in generosity and confidence ; be passionate and pugnacious, and he would have the less estimable victory there. He is not apt to give offence, for he is courteous ; nor will he receive a provocation without stronger remonstrance than men are accustomed to make in New England. He will peril life for a word, but will fight no longer for principle than the northern race that I have mentioned. His faults are those of his institutions, his virtues are his own, and they have my undivided admiration. In the city, he lives like a modern and a gentleman, among his peers ; in the country, he lives like a gentleman, too, but after the manner of a patriarch of old. He is intrusted with every thing relating to the happiness and welfare of hundreds of his fellow-men, who are not indeed convicts, but are yet 'guilty of a skin not colored like his own.' In administering justice he is prompt ; for he unites in his own person the powers of judge, jury, attorney-general, and sheriff ; generally speaking, however, he abuses no trust reposed in him by any of these incompatible relations. He has grown up among his slaves ; many of them have that tenacious hold upon his heart, that comes from early companionship as playmates, and some of them are his foster-brothers.

'We twa hae paidlet in the burn,
Frae mornin' sun till dine.'

"I have never seen elsewhere, and I fear I never shall, such an outgushing of affection as I have seen on the arrival of 'young master' or mistress. I have even had a share of it myself, in my relation of cousin to the young heir apparent. A hundred sable arms were extended to hug him, and he was patted, petted, and thrice blessed. This is a feeling that you can hardly conceive in New England, for it cannot subsist between a man and his cattle ; but in Carolina it raised my estimation of the master, and sympathy for the slave. The slave has nearly all the African good qualities, and his faults may be attributed to his circumstances, and the institutions that have 'reduced his soul to his condition.' The worst of his traits are deceit and cunning ; but his is a life of unremitted and unrequited toil, and it is a natural impulse, to avoid his task by deceiving his overseer. But he is kind and cheerful, and he is never better pleased than when he can contribute to the pleasure of a white man. In riding, I have often known boys of 15 and upwards run by my side for miles, to open the gates ; and the happiness of any negro is complete, when he is permitted 'to take his pleasure,' that is, when hunting or fishing with his master or a white. The old women, who are left in charge of the huts, will offer you yams and groundnuts with as much pleasure as it gives a hungry traveler to receive them.

"It is on his plantation that the planter is the best known. He is there independent of all modes and circumstances, 'as free as Nature first made man,' and more powerful than it is safe for men to be, — having little restraint upon his will but that of his prudence or his sense of justice. In New England and other 'foreign parts,' he may sometimes have an air of constraint, for he is

'Lofty and sour to those who love him not,
But to all such as seek him sweet as summer'

Yet in his own cotton-field he is himself, and what you see of him there you may consider (as we say) genuine. If you are his guest, he tells you that his plantation is your own, and while you remain it is such, in all things but the title deeds. You cannot stay too long, or take too much of the choice old wines.

"Virginia appears like a new settled, not an old State. You pass no stone-walls ; but hedge, or *in-and-out* zig-zag cedar rails, or wattled fences, if indeed any, on the main roads. At the South, a few houses, though not incorporated, are called a town. If you visit a plantation, you strike off the main road, up or down the banks of the long rivers, that run from the western mountains to the seacoast, or you mount into the ridge-forests. You feel a solitary emotion, as you find a house and out-buildings, on a spot cleared in the middle of the woods, and surrounded by broad wheat and corn fields ; not 15 or 20 acres of arable land, but from 100 to 500 ; not tilled by 5 or 6 hired men, but by from 30 to 100 or 200 slaves ; and in harvest time are in motion from 20 to 50 reapers, men, women, and children.

"As to the *manners* of the Virginians, they are a sallow, mercurial, liberal race ; having much of the *suaviter in modo*, as well as the *fortiter in re* ; abroad, extravagant in dress ; at home, slouching in homespun ; the children of rich planters not disdaining to wear check not quite tartan. They ride fine horses ; a wealthy landlord keeping his saddle, his racing, his carriage, and his plough horses, distinct. They teach the riding horses to pace over their smooth sands, and dislike trotters ; ride without cruppers, and, about home, with one spur ; thinking with Sir Hudibras, that if they get one side along, the other will not hang ashank. Instead of a chaise, they use a chair, which is very light, but unsocial, as they are usually single ; and which, moreover, being without a top, exposes them to the weather. Wherever the Virginians go, a slave or two moves behind as their shadow, to hold their horses, pull off their boots and pantaloons at bed time, and, if cold, to blow up the fire in their bed-rooms with their mouths , bellows being unknown in a slave State. All are fox-hunters and duck-shooters ; some keeping parks of deer, and others a ducker for the season. As game is plenteous near their enclosures, on a cloudy, drizzly day, or a clear, frosty night, when the hounds can scent the trail along the dew, out start young lads and bring home the partridge, the groundhog, the rabbit, and the opossum, with her offspring, not bigger than a bean, clinging to her teats in her false pouch. Formerly, there was a small bounty given for each crow's scalp, and they were taken in part for county taxes. Accustomed from boyhood to athletic sports, in an infinite series, the Virginians are muscular and elastic in limb ; and, leaving draughts, whist, backgammon, and chess, for the evening, they are out at sling-fist and sling-foot ; or outjumping or outrunning each other. I saw a young man betted upon, for 500 dollars, at a foot race. Indeed, every thing is decided by a wager. The Virginians are fierce marksmen, and dueling is not discountenanced. They sometimes meet, and shoot at target for a fish-fry. Fish-fries are held about once in a fortnight, during the fish season ; when 20 or 30 men collect, to regale on whisky and fresh fish, and soft crabs, just out of their sloughs, cooked under a spreading tree, near a running stream, by the slaves."

The best gifts that nature has bestowed upon the Southern States, are dashed with evils. The sun that ripens the orange and pomegranate, draws pestilent vapors from the surface ; and the scent of the rose and jessamine is mingled with the breath of pestilence. It is perilous to breathe the fresh air of the morning, or to encounter the rays of the sun at noon, or to enjoy the dews of night. The insects have powers of intolerable annoyance ; they must be kept at bay, by nettings which obstruct the circulation of air, and the sleeper rises at morning, weary and unrefreshed. The reptiles increase in venom, as the distance to the equator diminishes, and the natural agents are clothed with more formidable powers. The hurricanes sweep away the harvests, and the lightning rends the forest.

The citizen cannot but feel, that he is surrounded by a population, which any prospect of success would excite to a war of extermination ; but he is not a master from choice, but necessity ; not from his own seeking, but by inheritance.* In viewing the system of slavery

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* For the evils of domestic slavery, we are indebted to Great Britain, though no vituperation has been too harsh for British writers to visit us with. If they had forgotten our colonial history, it requires great effort to forget the existence of a more barbarous system in the West Indies, where the British slave population required a renewal in less than 15 years, while in the United States it doubles itself in less than 28 years. The trade in slaves was a favorite monopoly with Great Britain, and she supplied the colonies. Under her fostering care, the institution of slavery grew too great for remedy. The colonies resisted the importation of slaves. Massachusetts passed in both houses a bill to prevent it, but the royal governor, Hutchinson, refused his sanction, saying, that it was contrary to his instructions ; and the same reply was made by his successor, Gage. The courts went beyond the legislature, and gave judgment for the slaves, who sued for their wages and liberty ; and this was two years before the much vaunted case of Somerset in England.

In Virginia, the royal assent, though sought for by all manner of expedients, was refused to a bill imposing duties which amounted to a prohibition on all new importations of slaves. The very first assembly, however, under the constitution, finally prohibited the traffic, and one of the reasons assigned in that constitution for separation from England, was this "inhuman use of the royal negative." These are but a small part of the colonial efforts to abolish the traffic, which were always resisted in favor of the Royal African Company. Federal America interdicted the trade from her ports, 13 years before Great Britain, and made it punishable as a crime 7 years before.

The injury done in America was hardly less than that as it now is, it may be said, generally, that the comforts of the slaves are dependent on the humanity of their owners; whose interest it also is to keep them in health and strength. Their food and clothing vary somewhat in different districts, but generally, they are allowed a peck of Indian corn per week. This is the chief article of food, though it is occasionally varied by a month's change of sweet potatoes or red peas and broken rice. Rice, on the plantations where it is raised, is principally given out as food. No one is held to give more than the above quantity, but the same law of custom prescribes a provision ground and garden. The food of children is cooked and delivered by an old woman, who has this department, and who sometimes pours it into a wooden vessel of the shape of a trough; frequently it is delivered in small piggins. The humane owners allow every day to the working hands, molasses to eat with hominy, or a salted fish, though these are withheld for ill behavior. The slaves all raise poultry, but it is to sell; eggs and chickens are too flavorless for their taste, which is more gratified with salted meat, fish, molasses, and rum. The young lads who work in the fields, if only in scaring birds, have the full allowance of provision. The banks are covered with oysters, the streams abound with fish, and the woods with game, all of which the slaves may freely take. They have indeed so many facilities for acquiring a little property, that, with common prudence, they might have many comforts; yet, to be a slave, is to be careless of to-morrow, and hopeless of the future. They sell their little productions to the family, or elsewhere, at their option.

For clothes, 6 yards of woolen are allowed yearly to the men, and 5 to the women; the children are measured from crown to heel, and they have cloth of twice the length. In winter a handkerchief is given to the women, and a kilmarnock cap to the men. The summer allowance of clothing, if any, is 6 yards of homespun to each working hand. The old and infirm have red flannel. There are more dresses, however, on a plantation than are given by the owners. When the boat or wagon goes to market, the negro sends his little produce or sells it nearer home, and the avails are often laid out in finery; the women have handkerchiefs for turbans, and calico gowns. The men purchase old garments, and on a holiday, when they appear in their various costumes, it is a sight like a masquerade. Here a youth may be seen, with a coat of the last age, an apron, and a raccoon-skin cap, with the animal's tail hanging down between his shoulders. There an aged man has an old military frock, and by his side may be a female in a man's hat of fur, with a sailor's jacket over a gown of gaudy colors. The children in summer wear little clothing but a shirt, and many are divested even of that. On every plantation there is a nurse; and the overseer, who must be a white, has, in the absence of the owner, a chest of medicines. The alleviations are small. The slaves have three days at Christmas, with meat, pipes, tobacco, and rum enough for festivity. They have Sundays, new year's day, and a day for harvest. They may, and often do, gain a day, by doing the task of three days in two, and every woman who has seven children, has Saturday to wash and mend for them. She who has five children, has every third Saturday. The tasks are rarely severe, except in ginning the cotton, or separating it from the seed, and at the harvest on rice lands. In summer and spring, the negroes often leave the fields at three and four o'clock, and in winter, at one o'clock; though in some places it is much later.

The negroes commonly bury the dead in a tumultuous manner, and rum, tobacco, candles, and bacon, are consolations to the survivors seldom offered in vain. They are happy if they can secure a piece of white cloth, wherein to bury the deceased. The funerals are at night. Their original superstitions are few, though they adopt readily those of the whites. Their minds are too dark even for superstition, that invariable companion of common ignorance. Many of them believe, that the soul is even in life separable from the body; that when a man sleeps, the spirit has left his fleshly case for a season, as it leaves it for ever when he dies, or the soul goes on its long journey to what is called "Shut-eye-town." The spirit, they conceive, has the privilege of returning to the earth on missions either "wicked" or "charitable." The ghost, however, is, it is thought, obliged to avert the head from the direction in which it advances; or to look one way, and move another. They believe, that crows and owls give

perpetrated in Africa, where, on the coast, there was a disruption of the whole social state; the chiefs became slave-merchants, and all men, kidnappers. Wars were carried on between petty tribes, or members of the same tribe, for the sake of the captives, who were sold to the British, shipped by them to America in British vessels, under the special sanction of an act of the British parliament. The abolition of the trade by a later parliament, was no spontaneous act; for more than ten years it was annually attempted, and lost, and, but for the efforts of a few untiring philanthropists, it would have failed at last. Further details the reader will find at length in Mr. Walsh's "Appeal."

omens of death, and that the domestic animals, but principally cows, when they emit low and melancholy sounds, perform the same Banshee office. They have no obi-men, though they fear an evil prediction, which they call "putting a bad mouth" upon a person. They will never use in any way the wood of a tree that has been struck with lightning. It is not strange, that they should believe heaven to be entirely different from what they experience of earth, and they have no other conception of it than as a place where they shall rest from their labors. They sometimes speak of their lost children as still theirs. If asked how many children she has, a mother who has lost three, and has still seven, will say *ten*.

Their marriages are mere civil contracts, and are too often of little force. In towns, many have their children christened. On the plantations, the preacher is generally some respectable and fluent person, who harangues wildly, and who seldom connects his religious views with morality. Their amusements are few, and chiefly dancing. Many of them know so much of music, that they can play a few tunes on the violin, and they dance with much vigor. They are aristocratic, and feel towards a good master as the Highlanders to their chief. They despise poor white people, and often give them food with an air of patronage. They attach importance to being born on the estate, and are mortified if they are sold for a small sum. In the upper country, and with the small proprietors, the slaves live nearly on terms of equality with their masters. They prefer to have their children named by their owners, and it is a custom to give renowned Roman names. Cæsar, Pompey, and Cato, are found on all plantations. There are also several negroes with the same name, distinguished by some addition; as Long Tom, Short Tom, Big Tom, Lame Tom, Diana's Tom, &c.

The laws which operate on the slaves must necessarily be peculiar, though many of them are severe beyond all necessity. It is to be recollected, however, that they have grown up from the commencement of the institution; and that, from changes in circumstances, many of them have no longer an application, and many others are not enforced. The more severe parts of the code are not of recent enactment. A traveler, or even a resident in the Southern States, would not discover the existence of the severer part of these acts, without reference to the statute book. Captain Hall, who has traversed this section, and who, in America, at least, was sagacious in discovering defects, acknowledges, that slavery has all consistent mitigations, that the slaves are humanely treated, and not overtasked or underfed. This has, of course, much weight, as being the testimony of a competent, but reluctant witness.

Of these laws, we must speak generally, though there are many individual differences in various States. The slavery is by these laws made hereditary, and the servitude of the mother determines that of the child. Some few of the slaves are little darker than the whites; and when such claim their freedom, their color, in some States, throws the burden of proof upon the other side; but in the case of those evidently of African descent, the color is held to be a sufficient indication of bondage, till the negro furnishes testimony of his freedom. The slaves are in every State but Louisiana chattels personal, and may be sold to pay the debts or bequests of the master. In some States, certain separations in their families are forbidden; though, generally, the wife may be separated from the husband, and the child from both. The slave can make no contracts, nor can he legally hold any property. He can commence no suit, nor can a free negro, without the intervention of a special guardian. The testimony of a negro, bond or free, is not admitted in a civil or criminal suit against a white. There are, in all the States, restraints upon manumission; as a population of free blacks is felt to be dangerous to the subordination of the others. In all the States, negroes traveling without a pass are liable to be seized, advertised, and sold. In Mississippi, the jailer shall interrogate the prisoners, and write by mail to the person by them described as masters; if the account be false, he shall give each prisoner 25 lashes, "well laid on," and "interrogate them anew, and so on"; and for the space of six months, it shall be his duty "alternately to interrogate and whip, as aforesaid." The general punishment for minor offences is whipping, which may be inflicted by any owner or overseer. There are various laws, indeed, to restrain cruel punishments or tasks, and to prescribe a sufficient allowance of food and clothing, but these cannot be generally enforced for the want of evidence.

The best security of the slaves, is in the force of custom, public opinion,* and in the hu-

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* The following report will show, that the spirit and letter of the law is sometimes relaxed:

"*The Guardian of Sally, a negro*, vs. *Beattie.* This was a special action to establish the freedom of a negro girl: a negro slave, the property of the defendant, by working out, in town, by the *permission of her master*, had by her industry acquired a considerable sum of money over and above monthly wages to her master; and having an affecmanity or interest of the masters. On some plantations, there are premiums and prizes allowed to the slaves for good conduct, and no one is punished till after conviction by a jury of his equals. General instruction is prohibited, as ignorance is supposed to redound more to the security of the institution. The slaves may, indeed, attend the usual places of public worship, but these are few. A slave is tried for a capital offence by two justices, and from two to five freeholders ; and more offences are capital in him than in a white. It is punishable with death for a slave to attempt to commit murder, burglary, robbery, &c., or to attempt to burn a house, or out-buildings connected with a house. The murder of a slave by a white, is in every State punishable with death.

19. *Amusements.* These are generally the same as in the other sections ; though there is more gambling. The field sports are on a greater scale, from the abundance of game. Many of the gentlemen keep packs of hounds, and parties hunt foxes, and chase the deer, very much after the fashion of England. In Louisiana and the adjacent States, a peculiar method of killing deer, called fire-hunting, is common. Two persons go at night, one carrying a rifle, and the other a torch, or brand of fire, or sometimes a pan of coals, upon which a blaze is kindled. They seek the places which the deer are known to frequent, and as these animals will not fly, but stand bewildered and gazing at the fire, the huntsman shoots one of them down as soon as he can see its eye glistening through the darkness. Accidents sometimes happen in this method of sporting, as a neighbor's horse or cow is sometimes found to have received the rifle-ball, instead of the imagined deer. Among the amusements, horse-racing is the most general ; the races are held in almost every county, and in perhaps every capital They are well attended, and often attract a great concourse of ladies as well as gentlemen. The breed of horses is, of course, a subject of interest, and it is in general excellent. In Virginia, the horses are of the Arabian stock, and in no other climate (except the original one of the race) do these animals retain their characteristics so well.

Fire-hunting.

The barbacue is a kind of feast peculiar to the Southern and Western States. It is a feast held in the country, sometimes for mere festivity, and sometimes for political purposes. Hogs, deer, and wild turkeys, are roasted or barbacued by being placed on sticks before a fire. The following description of a scene of this kind, is from the New England Magazine. "Now fancy yourself riding 'along and along' through the green wood, till you would like to live, like Jaques, 'under the shade of melancholy boughs,' afar from the habitations of men ; you come at once upon a multitude of rich equipages, with beautiful horses unharnessed and tied to trees. Advancing, you hear shouts, merriment, and 'tweedle dum and tweedle dee.' Music and dancing are near, and if there are no nymphs and dryads, pass on, and you see, glancing around, groups or constellations of ladies, such as you will see only in Virginia or Spain. These are attended by the satellites that usually follow in the train of beauty. You discover a large circular space covered with canvass or boughs, where the light of heart and foot are dancing to the violin and fife, while under trees at a distance are the more sedate and grave in years, sitting at tables by fours, and looking intently on little parallelograms of pasteboard, which, ever and anon, they rap down with force upon the board. You will not fail to see a range of tables that

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tion for a negro girl Sally, she purchased her with this money, which she had been years in accumulating, and gave her her freedom. For a considerable time, the defendant never claimed any property in the girl, never paid taxes for her, but acknowledged that he had no property in her. When called upon to deliver up the girl, as free, he refused ; and, in consequence, this action was brought. The court charged the jury in favor of the plaintiff; Chief Justice Rutledge saying, in conclusion, 'If the girl chose to appropriate the savings of her extra labor to the purchase of this girl, in order afterwards to set her free, would a jury of the country say no! — he trusted not. They were too humane and upright, he hoped, to do such manifest violence to so singular and extraordinary an act of benevolence.' The jury, without retiring from the box, gave a verdict for the plaintiff's ward and she was set at liberty." — *South Carolina Reports* would feast a regiment, and camp-fires at which all flesh and fowl is roasting, including a 'whole hog,' that constitutes the *barbacue* which gives name to this feast. When the banquet is ready, you devote yourself to the constellations, as the first course is for the ladies, upon whom the gentlemen attend, as the genius waited upon Aladdin. The second course is for the lords, upon whom the managers and slaves attend. After all, the managers dine also, and they have servants no less exalted than the ladies. A barbacue has from 300 to 800 people, and it is only where a very social life is led, that this feast could be so well filled. But sometimes a candidate or an officer invites the whole county, and the number is then greater. The master of the feast, on this occasion, ascends the rostrum, made by the woodman, and which is that part of a tree that is immediately above the roots. From this elevation, he harangues the people in good Virginian, which is generally choice English, always excepting *toting*, which I find in no classic author."

In the elections there are some peculiarities. The candidates frequently nominate themselves, or offer their service through the newspapers; a favor to the electors, that would not in New England be acknowledged by a single vote. As it is established by custom, however, it does not indicate any undue share of ambition. The candidates at the South come into more immediate contact with the electors than at the North, where the canvass is chiefly confined to the newspapers. They sometimes (though this is rare) go the rounds of the district, and visit the families before an election. The barbacue offers the best means of communicating with the electors themselves; sometimes the constituents invite their representative to this sylvan feast, and at other times, the friends of a candidate make the festival. On these occasions, a display is made of that natural gift of eloquence, which is called *stump oratory*, from the rostrum, which is sometimes a stump. Here, when the heart is opened by conviviality, the speaker can the more effectually adapt himself to the character and prejudices of his auditors. It is related of an eminent statesman, that on one occasion he met his constituents at a barbacue, where there was much dissatisfaction expressed at one of his votes in the national council. He addressed the people, and closed his speech by thus adverting to the vote: — "I have been told, that you are not pleased that I should have given such a vote, though it was given in accordance with my judgment and conscience; it may have been wrong, but I think it right. My friends, I have been your servant for 15 years, and in all that time I have not failed to satisfy you until now. It is not easy to say which side is wrong; but I am content to grant, for the present, that I was mistaken. Now suppose one of you had an old rifle, which for 15 years had never missed fire, or failed to hit the mark; but at length, for once, it fails and disappoints you! what then would you do with it? would you throw the old rifle away, or would you 'peck the flint, and try it again?" "Huzza for C.," was the shout, "peck the flint, and try it again."

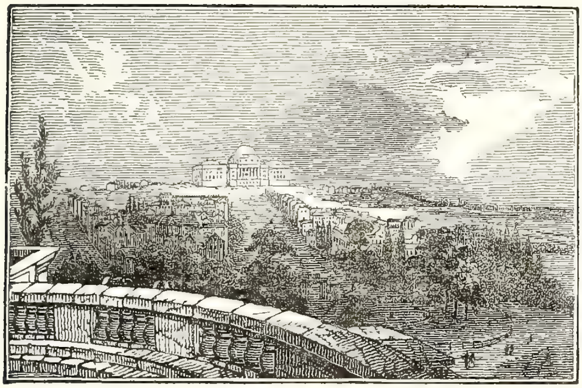
20. ***Education.*** In the southern section of the Union, there are generally provisions for schools, but the population is so thin, that many have few advantages for education. Among the slaves, few can read, and among the whites there are a few who cannot. The number who cannot read, however, is larger than in New England. Some of the colleges are well endowed, and have many scholars, though numbers of the youth are still sent for their education to New England.

21. ***Religion.*** The sects are numerous; they contain every denomination of Christians, and many Jews. The Sabbath is less strictly observed than in New England, and in a great part of the section, the pulpits are supplied by traveling preachers, principally Methodists and Baptists.

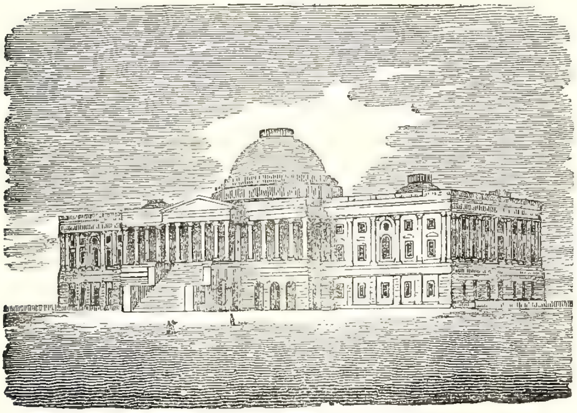
CHAPTER XVIII. DISTRICT OF COLUMBIA.

1. ***Extent. Population.*** This is a territory of 10 miles square, under the immediate government of Congress. It is divided into two counties, and three cities; the counties and cities being separate. The cities are Washington, Alexandria, and Georgetown; the counties, Washington and Alexandria. This District lies on both sides of the Potomac, 120 miles from its mouth, between Maryland and Virginia, and was ceded to the general government by those States in 1790. The seat of government of the United States, was established within its limits in 1800. It has never been represented in Congress. The capitol at Washington, from which American geographers often compute their meridian, is in 38° 53′ N. latitude, and 77° 2′ W. longitude from Greenwich, 79° 22′ W. longitude from Paris, and 58° 45′ W. longitude from Ferro. The population of the District is 50,000.

2. *Cities.* *Washington*, the seat of government of the United States, stands in the centre



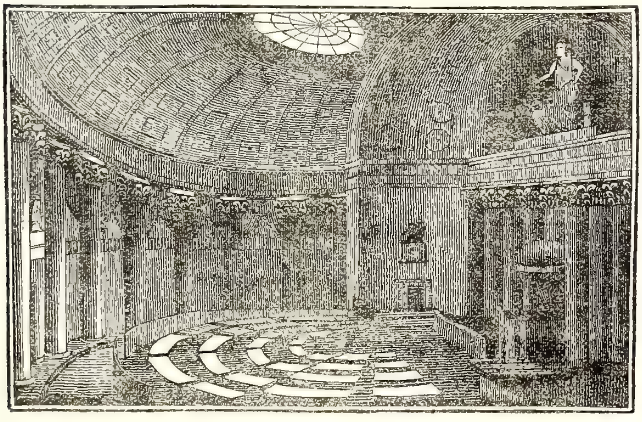
Washington City.



The Capitol.

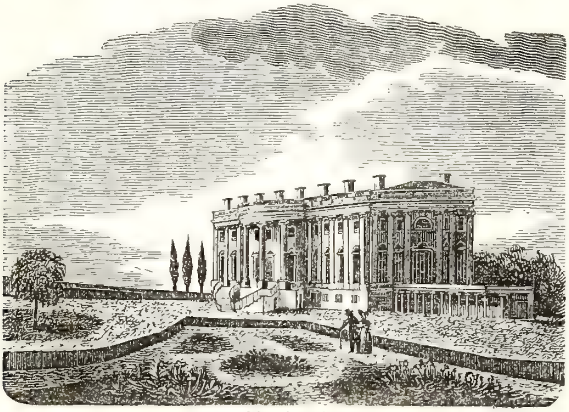
of the District, upon the north bank of the Potomac, between the river and one of its tributaries, called the East Branch. The actual city occupies a spot about a mile and a half above the junction of the two streams, although the original plan embraces the whole extent below. The plan of the city combines regularity with variety, and is adapted to the variations of the surface, so that the spaces allotted to public buildings, occupy commanding positions, and the monotonous sameness of a rectangular design is avoided, while all its advantages are secured. The minor streets run at right angles, but the larger avenues diverge from several centres, intersecting the streets with various degrees of obliquity, and opening spaces for extensive squares. The smaller streets run north and south or east and west, and are from 90 to 110 feet wide. The grand avenues are from 130 to 160 feet in width, and are planted with trees. Several of the largest unite at the hill on which the capitol is situated. These bear the names of the several States of the Union. Such is the outline of the city of Washington, according to its original plan, although its tardy growth has yet filled up but a small portion of this great skeleton of a national metropolis. The buildings which it contains are in three distinct parts, one portion being in the neighborhood of the navy-yard, another in that of the capitol, and another in the Pennsylvania Avenue, which extends from the capitol to the President's house. The city presents the appearance of a group of villages, the spaces between the inhabited parts not being occupied or marked out.

The *Capitol* is a large and magnificent building of freestone, painted white, 352 feet long, in the shape of a cross, with the Representatives Hall and the Senate Chamber in the two wings, and a spacious rotunda in the centre. The *Representatives Hall* is semicircular, 95 feet in length, and 60 in height, lighted from the top, and adorned with a colonnade of pillars of breccia, beautifully polished; it is one of the most elegant halls in the world. The ***Senate Chamber*** is of the same shape, and 74 feet long. The ***Rotunda*** is 96 feet in diameter, and 96 feet high, to the top of the dome within. It is all of marble, and the floor is beautifully paved; the whole has a most grand and imposing effect. Several pieces of sculpture and a series of national paintings by Trumbull, are placed in the niches in the walls, representing events in American histo-

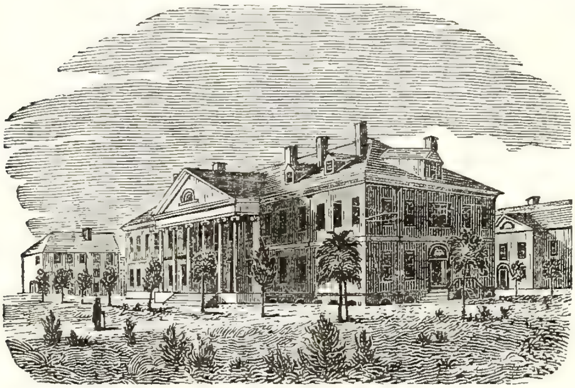


Representatives Hall

ry. The sound of a single voice uttered in this apartment, is echoed from the dome above, with a rumbling like distant thunder. On the west front is the Library of Congress, and below are the rooms of the Supreme Court of the United States. In the court of the west front stands a rostral column erected in honor of those officers who fell at Tripoli.



President's House.



Department of State.

The *President's House* is a handsome structure of freestone, 170 feet in front, and two stories in height, ornamented with an Ionic portico. It stands about a mile west of the capitol. It is surrounded with the offices of the heads of departments. At the patent office, is kept a collection of all the models of patent inventions in the country. The Navy Yard is on the East Branch. There are few other buildings worthy of notice for their architecture. The offices of the Department of State, War, &c., are large edifices of brick, with a portico. There are two public free schools in the city. Two bridges cross the Eastern Branch, and one the main stream of the Potomac at Washington. Washington numbers 20,000 inhabitants. During the session of Congress, it is thronged with visiters from all parts of the country, and the levees and entertainments given by the officers of government and foreign ambassadors, render it a scene of much gayety and bustle. In summer, the public buildings draw occasionally a few visiters, but the society of the place has small attractions during that season. The country around is thinly inhabited, and the soil sandy and unproductive. The Potomac is navigable for ships of the line, but Washington has no commerce.

Notwithstanding its preëminence as the national metropolis, Washington will probably never be a great city. The more substantial part of its population is migratory ; the machinery of government is too simple, and the points of its operation are too widely dispersed, to bring any great and constant expenditure of the public revenues within its limits. The general state of society, too, must prevent the population of our country from concentrating in any spot deficient in permanent natural advantages. A fertile territory, or a convenient seaport, will combine more attractions than the artificial establishments of a metropolis. The true capitals of the United States, are, and always will be, the great commercial cities.

Georgetown may be considered a suburb, or part of the metropolis, being separated only by a narrow creek. It is about 3 miles west of the capitol, and is pleasantly situated ; commanding a prospect of the river, the neighboring city, and a diversified country in the vicinity. The houses are chiefly of brick, and there are many elegant villas in different parts. The Catholic monastery occupies a delightful situation, upon an eminence overlooking the town ; this institution contains about 60 nuns, and embraces a high school for females, and a charity school of 100 pupils. Georgetown is a thriving place, and has a considerable commerce ; but the navigation of the river is obstructed by a bar just below the town ; here is also a cannon foundery. The Chesapeake and Ohio canal leaves the Potomac at this place, and a bridge crosses the river. Population, 8,600.

Alexandria is 6 miles below Washington, on the opposite side of the Potomac. The river is here a mile wide, and 30 feet deep. The city rises considerably from the river and is regularly built, with clean and handsome streets, neatly paved. A row of wharves extends along the river, the whole length of the city, where ships of the largest size may lie. Alexandria has a great trade in flour, tobacco, lumber, and fish, by means of communication with the back country, and its situation as a seaport. Population, 10,000.*

3. *Education.* *Columbian College* is situated in Washington. It was founded in 1821, and has 8 professors, and 100 students, with a library of 4,000 volumes. The college edifice stands on a high spot of ground, a little more than a mile north of the President's house. The *Georgetown College* in Georgetown, was established in 1799, and is under the direction of the incorporated Catholic clergy of Maryland. It has 19 instructers, and 140 students, with a library of 12,000 volumes.

4. *Religion.* The Baptists have 5 churches ; the Presbyterians 14 ; the Catholics 6 ; the Episcopalians 8 ; the Unitarians 1. There are also some Methodists and Friends.

CHAPTER XIX. VIRGINIA

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* Virginia is bounded N. by Ohio, Pennsylvania, and Maryland ; E. by Maryland and the sea ; S. by South Carolina and Tennessee ; W. by Ohio and Kentucky. It lies between 36° 30′ and 40° 38′ N. latitude, and 75° 10′ and 83° 30′ W. longitude. It is the largest State in the Union as to territory, being 370 miles in length, and 200 in breadth. It comprises 70,000 square miles.

2. *Mountains.* The Appalachian chain comes from Pennsylvania, and passes through the State, southwesterly into North Carolina and Tennessee. The most easterly ridge is known by the name of the Blue Ridge. On the west, the Laurel Mountains and Chestnut Ridge extend from Pennsylvania, and terminate in this State. The Cumberland Mountains lie between Virginia and Kentucky. The Alleghany ridge is continued from Pennsylvania, and there are several other ridges, as Greenbriar, North Mountain, Broad Mountain, Back Bone, Jackson River Mountain, Iron Mountain, and Great Flat Top. The loftiest summits of the Blue Ridge are the Peaks of Otter, which are 4,300 feet above the level of the sea ; but some mountains in the Alleghany ridge, in the southwestern part, reach the height of 6,000 feet.

Jefferson's Rock.

The passage of the Potomac, through the Blue Ridge, at Harper's Ferry, presents the appearance of an immense rent, three quarters of a mile wide, through a stupendous wall of rocks. The broken fragments of the mountain which lie scattered around, and its craggy front, torn down to the base, attest the violence of the disruption, and forcibly remind the spectator of the period, when the mountain ridge opposed a barrier to the stream, and when its collected waters swelled to such a mass as to tear away the mountain from its foundation. Jefferson's description of this scene must be familiar to every reader. A lofty crag, upon the margin of the river, has received the name of *Jefferson's Rock*, and is represented in the subjoined cut.

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* " *Potomac Fisheries.* It is an animating and gratifying spectacle, to behold so much life and spirit at the fish wharves in Alexandria, Georgetown, and Washington. At the Long Bridge in this city, one may constantly witness a number of fine teams waiting both by night and day to be filled up with the produce of our majestic river. On the margin of the river may be seen the spacious booths and shanties of those who are either directly or indirectly engaged in the shad and herring fisheries. It indeed resembles not only a business but a pleasure fair, as at night one does not unfrequently hear the footsteps of the merry dancers keeping time to the tune of the violin, while refreshments of every kind are placed within the reach of the joyful and gratified company who flock in from the boats moored along side, to participate in the general hilarity. Passing over the Long Bridge, where most probably one meets with a train of fish wagons, we reach the opposite shore of the Potomac, and repair to the nearest fishing landing, to observe the hardy fishermen hauling in their seines, and displaying on the sandy banks of the river the fruits of their skill and industry. Thousands of gratified spectators have visited the proximate shores of Alexandria county during the last week, all of whom seem to have been delighted with the interesting scene before them. Who indeed can look upon the abundant supplies of wholesome and excellent food which are brought within their reach, without feeling grateful to an all-bountiful Providence for his care and kindness in sending forth these plentiful shoals in their proper season ! " — *National Intelligencer*

3. *Rivers.* The Potomac, on the northern boundary, has already been described. *James's River* rises among the mountains, and flows southeast into Chesapeake Bay ; it is more than 600 miles long, and is navigable by sloops 120 miles, and by boats 230 miles further. At the point where this river breaks through the Blue Ridge, it receives a branch called *North River ;* afterwards it is joined by the *Rivanna* and at City Point by the *Appomattox ;* this branch is 120 miles long, and is for the most part navigable. The *Rappahannock* rises in the Blue Ridge, and runs into the Chesapeake, 25 miles south of the Potomac ; it is 130 miles long, and is navigable by vessels of 130 tons for 110 miles, *York* river is formed from two considerable branches, the *Mattapony* and *Pamunky*, and enters the Chesapeake, 30 miles below the Rappahannock ; it is navigable for large ships 40 miles. The *Shenandoah* is a tributary of the Potomac, and unites with it just before that river bursts through the Blue Ridge. The *Dan* and *Staunton* rise in this State and unite to form the Roanoke, which passes into North Carolina. All the preceding rivers belong to the Atlantic region. West of the mountain, the streams run into the Ohio, and are smaller. The *Great Kanawha* rises in North Carolina, and passes through this State ; it has a great cataract 100 miles above its mouth, but is navigable for the most of its course in summer. The *Monongahela*, one of the head branches of the Ohio, the *Clinch* and *Holston*, whose union forms the Tennessee, pass out of the State. The *Little Kanawha*, and *Big Sandy*, and *Guyandotte*, flow into the Ohio.

4. *Bays and Harbors.* The outer half of *Chesapeake Bay* lies in this State, and by its depth and extent, and the numerous fine rivers which it receives, is of the highest use for navigation. Most of the large towns are situated at a considerable distance up the rivers. Norfolk has a good harbor, in the southern part of the bay, near the mouth of the James. The embouchure of this river forms a spacious haven, called *Hampton Roads.* These roads were formerly open, but strong fortifications have rendered their entrance impracticable to an enemy.

5. *Shores and Capes.* The shores are low and flat. A peninsula about 60 miles long, and from 10 to 15 wide, lies on the eastern side of the Chesapeake, and is bordered toward the sea, by a string of low, sandy islets. The waters of the Chesapeake enter the sea, between Cape Charles and Cape Henry, forming a strait 15 miles in width.

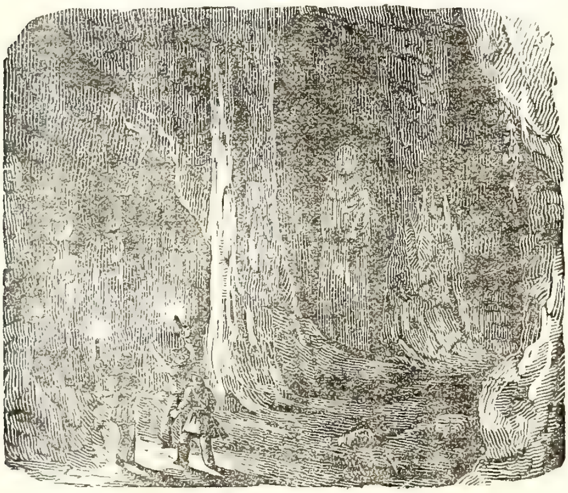
6. *Climate.* From the vast extent of this State, and the varieties of its surface, we should of course be led to expect a great diversity of climate. In the Atlantic country, east of the mountains, the heats of summer are long and oppressive, the spring short and variable, and the winters extremely mild ; the snow seldom lying more than a day after it has fallen. Droughts in summer and autumn are frequent. The people have sallow complexions, from the heats of summer, and bilious diseases in autumn. In the mountains, the air is cool and salubrious, and the inhabitants are tall and muscular, with robust forms and healthy countenances. Fires are here used during five months of the year. The heat of summer during the day is considerable, but the nights are always cool. On the western side of the mountains, the climate is colder by some degrees than in the same parallel of latitude on the coast. The valley of the Ohio is exceedingly hot in summer, while in winter, the river is frozen so as sometimes to be passable for 2 months together. The autumn is dry, temperate, and healthy, with the most beautiful weather.

7. *Soil.* There are 4 distinct divisions under which we may regard the surface of this State. From the Atlantic coast to the head of tide water on the rivers, the country is low, flat, and marshy, or sandy ; this meagre soil is covered with pines and cedars ; but the banks of the rivers are loamy and rich, and the vegetation in those parts luxuriant. This territory is alluvial, and exhibits marine shells and bones everywhere beneath the surface. From the head of tide water to Blue Ridge, the land begins to rise, and becomes stony and broken ; the soil lies on a stratum of stiff, reddish clay, and is much superior to the lowland country. In the valley between the Blue Ridge and the Alleghany, we come to a limestone country ; here the soil lies upon a bed of that rock, and is very fertile, particularly in grain and clover. In some parts, the soil is chalky. The western part of the State, or that part which lies between the mountains and the Ohio, has a broken surface, with extensive fertile tracts ; but the soil is occasionally lean.

8. *Face of the Country.* In general appearance, Virginia resembles Pennsylvania in the mountainous parts ; but the level plains toward the sea, are much more extensive

Natural Bridge, in Virginia.

9. *Natural Curiosities.* The **Rock Bridge**, over Cedar Creek, a little stream running into the James, consists of an enormous chasm, 200 feet in depth, nearly perpendicular, through which the stream passes. A huge rock is thrown across the chasm at the top, forming a natural bridge, 80 feet in width, and covered with soil and trees. Jefferson describes it as follows : " Though the sides of this bridge are provided in some parts with a parapet of fixed rocks, yet few men have resolution to walk to them, and look over into the abyss. You involuntarily fall on your hands and knees, creep to the parapet and peep over it. Looking down from this height about a minute, gave me a violent head ache. If the view from the top be painful and intolerable, that from below is delightful in an equal extreme. It is impossible for the emotions arising from the sublime, to be felt beyond what they are here ; so beautiful an arch, so elevated, so light, and springing as it were up to heaven ! the rapture of the spectator is really indescribable ! The fissure continuing narrow, deep, and straight, for a considerable distance above and below the bridge, opens a short but very pleasing view of the North Mountain on one side, and Blue Ridge on the other, at the distance, each of them, of about 5 miles. This bridge is in the county of Rockbridge, to which it has given name, and affords a public and commodious passage over a valley, which cannot be crossed elsewhere for a considerable distance."



Weyer's Cave.

The greatest natural curiosity in Virginia, is *Weyer's Cave*, in Augusta county, among the mountains. It was named after its discoverer, who, in 1806, when hunting, was led by his game to a small hole in the earth ; this being dug into, was found to be the entrance to an immense grotto, which was explored for more than a quarter of a mile. It has a great number of branches or apartments, abounding with sparry concretions, and from the description given by visiters, seems to equal, in the singularity and splendor of its contents, the celebrated grotto of Antiparos.* Near the town of Port Republic, on the south branch of the Shenandoah, is *Madison's Cave*. It is in the side of a hill, 200 feet in height, and contains a great deal of earth which is used for manufacturing salt-

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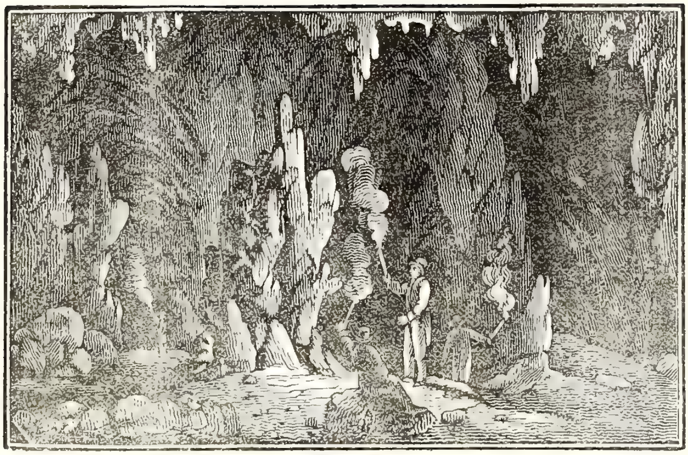
* The following description, by an eyewitness, is taken from the Boston Daily Advertiser.

" More than half way up the acclivity of the hill, we entered boldly, first into the vestibule or ante-chamber, the arch of which is 8 or 10 feet high, abounding in spar, thence through a rock of petrifaction, into the Dragon's room, where, by the percolation of the water through the roof above, there are found thousands of stalactites and stalagmites, of the most uncouth figures ; these were anciently supposed to be petrified water, but after later researches we find them to be various kinds of earth, carried down in solution with the water, and, by the attraction of composition, collected into bodies, which are congealed after the evaporation of the water, by the cementing qualities



Madison's Cave.

petre. Near it is another and larger cave, half a mile in extent, with various apartments and windings. It contains many stalactitic columns, 10 and 12 feet in circumference. In another part is a cavern called the *Blowing Cave*, out of which rushes a stream of air sufficiently strong to prostrate the grass and weeds at the distance of 60 feet. There are numerous other caves, in this region. Near Estillville, in the southwestern part of the State, is a long, winding passage, in the form of an S, extending quite through a hill; it is 450 feet in length, 70 to 80 in height, and from 50 to 150 in breadth; it is called the *Natural Tunnel.*

of the lime which constitutes a part of the composition of earths. This petrifaction is also of different kinds; there are yellow, white, reddish, marble-colored, transparent, and crystalized. Yet the greatest quantity of spar has the color of red clay. In the Dragon's room there is an imitation of the Dragon, facing a stupendous vault, under which there is a projecting rock, called the Devil's gallery, surrounded by many soniferous spires. We proceeded through a short and narrow passage, descended a ladder, partly hewn out of rock, to Solomon's Temple, which is the most sublime scene I ever beheld. To attempt to describe what is here imagined, in entering this lurid, scarce half-illumined recess, is quite in vain! nor can any person form even the faintest idea of the sublimity and grandeur of this subterraneous abode, until he witnesses its magnificence; nor then can he find language copious enough to express his sentiments. It was justly observed by an English painter, who was here some time, that a correct delineation or description would require years with the pen. In Solomon's Temple there is a wave-like folding of incrustations, from the ceiling to the floor, exactly representing water tumbling over a precipice which had conglaciated in falling, called the cataract or Falls of Niagara. In front is a large sofa called Solomon's Throne; on the left is a large, transparent, fluted column, called Solomon's Pillar; a few paces further, there are thousands of white pieces hanging to the ceiling, of a spiral form, called the Radish Room; beyond which it is difficult to traverse, on account of the huge masses of rocks which have fallen over the floor. We then took a retrospective view of the pillar, and returned to the cataract, ascending the ladder about ten feet high, and went through a long passage to the Tamborine or Drum room, which is extravagantly decorated with a variety of beautiful drapery, variegated and diversified; throughout the room there are also a number of semi-pellucid curtains, of different colors and forms. Besides these in the Tamborine or Drum room, there are large sonorous sheets, called the drums, which sound very much like the kettle drum; also a semicircular column with pedals about it, of different lengths, and of course different toned, called the Piano Forte.

" We then proceeded up a natural and elegant stair-case. banistered suitably to rest the hand on, and passed Patterson's Grave, (a hollow rock, into which a gentleman by that name fell,) and by descending a ladder we entered the Ball room; which is about 40 yards in length, and 10 in breadth, and the floor quite level. At one extremity there is a small room called the Lady's Dressing room, which, in addition to the Ball room, appears to have been constructed by nature for that purpose. At the other there is a stalactite of spar, about 4 feet high, and 12 inches in circumference, on which may be fixed a candle, called the Recluse Candlestick. About the centre of this beautiful apartment, there is an imitation of a sideboard, furnished with decanters and tumblers. Besides those in the Ball room, there is a sheet extending up the side of the wall, called Tragical Soundboard, remarkable for its sound; a gentle thump with the foot will produce a wonderful and astonishing sound, resembling distant thunder, which sound pervades the whole cave; yet articulation can scarce be understood 200 yards. From the Ball room we passed through a narrow and difficult passage to Jacob's Ladder, which is hewn out of a sort of calcareous rock, supposed by many people to be natural, which causes it sometimes to fall under the appellation of natural steps; but I think it hardly probable. At the foot of this ladder there is a very low and dreary place called the Dungeon. Next we came to the Senate Chamber, which contains a variety of beautiful spar; in this place there is a magnificent gallery projecting over one half of the room, called the Music Gallery, on which there is a small apartment remarkable for the reverberation of sound; the voice can be heard to re-echo in this room with such astonishing velocity as to render speech unintelligible. We then went through an open and grotesque passage to Washington's Hall, the most splendid, extensive, and beautiful room in the cave; where the grandeur of its height, the diversity of its representation of the works of art, the reverberations of the voice, and the splendor and brilliancy of its spar, is not only calculated to keep the sublime emotions in a constant state of excitement, but strikes the mind with almost repressed curiosity. The curious explorer now witnesses something amazingly sublime; the walls are strung with musical columns, which, by running a stick over them, will produce a profusion of discordant sounds. The drums, the tamborine, the piano, and eack note, discordant heard alone, aid the full concert, while the soundboard roars a melancholy murmur through the whole. On the right side of this apartment, there is a colonnade of marble statues; over which there is an imperfect imitation of a rake, as we advanced further we saw an incrustation on the side of the wall, which extended from the floor to the ceiling, representing a streak of lightning.

" We now look forward and see Washington's Statue, which at this distance represents a gigantic figure: and from a closer view assumes the appearance of a large person, veiled with white. Directly to the left is Lady Washington's Drawing room, in which there is a variety of beautiful drapery, the most edged with white, and some entirely white, hanging in the form of curtains. On the right side of this apartment there is a declining rock, placed like a looking-glass, with a canopy above it, and bureau just before it; on which there is a solid rock, a

8. *Geology.* The geological formations of this vast region, have as yet been but very partially explored, and many erroneous notions have been entertained respecting them The low country is called by the State geologist the tertiary marl region, and it consists of horizontal beds of sand and clay, abounding in fossil marine shells and the remains of large marine animals ; a band of the New Jersey greensand, or upper secondary formation, traceable across Maryland, also appears here, but its limits have not been defined. West of the tertiary plain, is a belt of primary rocks, the eastern edge of which is marked by a ledge of gneiss, which forms the lower falls of the eastern rivers ; gneiss is the prevailing rock, but granite also occurs ; and what is singular, a coal-field is here found, with the coal-measures resting immediately upon the primary rocks. Still proceeding westward, we come upon a region of hornblende, micaceous, talcose, chlorite, and argillaceous slates, containing veins of auriferous quartz, succeeded by a belt of limestone, yielding, in some localities, a fine white marble, between which and the western base of the Blue Ridge, are strata of altered sandstones and conglomerates, indurated by beds or dikes of trap rocks. The floor of the great valley consists of limestone, sometimes organic, and calcareous sandstones, and the vast region beyond is composed of numerous alternations of various sandstones, slates, and limestones.

9. *Minerals.* The mineral wealth of Virginia is almost boundless ; gold, copper, lead, iron, coal, salt, limestone, marls, gypsum, magnesia, copperas, and alum earths, excellent marbles, granites, soapstones, freestones, &c., are among the treasures as yet, for the most part, lying idle in the bowels of the earth ; and to this list must be added the thermal, chalybeate, and sulphuretted springs, unrivaled in number, variety, and powers, even by the famed brunnens of the Rhine. Mining industry has, however, recently received an impulse, and will doubtless ere long give lucrative employment to thousands. The first coal-field has been traced from the South Anna to Prince Edward, south of the Appomattox ; the thickness of the seams ranges from 4 or 5 to 30, 40, and even 60 feet ; the coal is bituminous, and of an excellent quality. There are extensive workings in this field, chiefly in the vicinity of Richmond. Anthracite is abundantly disseminated in the mountainous tract beyond the great valley. On the North Branch of the Potomac, there is a valuable bituminous coal-field, with 5 tiers of coal-seams, having an aggregate thickness of 35 feet, and alternating with iron-ore. West of the Alleghany, there are some of the most extensive and valuable deposits of bituminous coal in the world, which derive additional importance from their being associated with not less valuable deposits of iron-ore and rich salines. The seams are often laid bare by the excavations made by running waters, so that the coal can be discharged from the river-cliffs directly into boats or arks, and thus transported with as little expense as it is quarried. At Wheeling, and for 14 miles down the river, the bank presents an uninterrupted bed of coal, upwards of 16 feet thick. Another vast field stretches from above Clarksburg, on the Monongahela, to Pittsburg, and far beyond, northeastwardly, in Pennsylvania ; in some places the seams in this field are from 10 to 12 feet thick. There are also coal-seams associated with salt springs on the Little Kanawha, Great Kanawha, Guyandotte, and Sandy rivers.

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very striking imitation of the opossum, which could not be surpassed by the most exquisite artist; we then returned, passed Washington's Statue, and came to 2 large pillars of a conical form, about 30 feet high, called the Pyramids; also another rather declining and about the same size, called Pompey's Pillar. Washington's Hall is about 91 yards in length, and 20 feet wide, the arch is about 50 feet high, the floor is level but gravelly. In the room I fired a pistol, which, when its contents first exploded, produced a sound equal to the most severe clap of thunder, and for some time there was a rumbling noise resounding throughout the different apartments; we repeated it several times; the earth apparently shook. We then proceeded through a difficult passage, by a numerous quantity of crystalized spar, and entered a small apartment, that contains an excellent and useful spring, with water pure and limpid, and supplied with a tumbler. Next is the Diamond Room which derived its name from the brilliancy of its spars, and its resemblance to diamonds. We were here in view of, but at some distance from, a small white stalagmite of petrifaction, resembling a pillar of salt, called Lot's Wife; which is difficult of access, on account of the irregularity of the room. The Dining Room comes next, and it is very lengthy; the arch is about 80 feet above the floor; the representation of a Church Steeple, Jefferson's Salt Mountain, the Chandeliers, and height of the arch, in this room, present the eye with sublime spectacles.

"We then passed through a rugged passage, called the Wilderness, into Jefferson's Hall. This passage forms a wild, grotesque scene, and whence the numerous broken pillars came, appears to be a question unanswerable, and excites much astonishment. In Jefferson's Hall, we first saw a massive body of spar, which would weigh, probably, thousands of tons, full of flutings regularly formed round its front, which is semicircular, called the Tower of Babel. Facing this magnificent monument of supernatural agency, is something that much resembles the new moon surrounded by stars. The Lantern, in this room, is also worthy of notice; it is a projecting rock, with a number of small sheets hanging to it, not much unlike saddle-skirts, which emit the rays from the candle, when placed between them. Next in our view, is the most beautiful piece of spar anywhere to be found in the cave, called the Lady's Toilet; about 50 yards further is Elijah's Mantle, where this wonderful scene finally terminates. We were now upwards of a quarter of a mile from the entrance, and our candles nearly consumed, which induced us to return."

Salt springs occur on the Holston, Sandy, Guyandotte, Great and Little Kanawha, on the New River, the Greenbriar, and the Monongahela. But the most important works are on the Great and Little Kanawha. On the Holston, the salt-wells are from 200 to 300 feet deep, and yield at the rate of 1 gallon of salt to 10 or 16 gallons of brine. On the Great Kanawha, the borings are from 300 to 500 feet deep, and extend along the river on both of its banks, for the distance of about 12 miles. The water is raised by steam-engines, and boiled in cast-iron pans, about 25 feet long by 6½ wide, the furnace being from 80 to 100 feet long. On being boiled, the water turns red, and is drawn off into the brine-troughs to cool and settle ; it is next returned to the "grainers," in which it is boiled down into salt, and then lifted out upon a platform for the purpose of draining off the bitter water, or muriate of lime. The manufacture of alum-salt, as the coarse salt is here called, has but lately been introduced ; the brine, in this case, is carried into large, shallow, wooden vats, and kept at a moderate temperature by steam, instead of being boiled. The quantity of salt at present made in this part of Virginia, is about 3,000,000 bushels annually, 70 gallons of brine yielding, on an average, a bushel of salt.

Gold is at present the most important of the metallic minerals of Virginia. It occurs throughout a belt on the western side of the primary district, stretching from beyond the Rappahannock to the Appomattox. Scientific processes of mining and separating the metal, have been only very recently and partially introduced. Most of the gold hitherto obtained, has been procured by washings from the deposit mines ; but several veins have yielded rich returns. The material of the veins is a variegated quartz, sometimes translucent, at others opaque. It is generally of a cellular structure, and fractures without much difficulty. The cavities are often filled with yellow ochre, which generally contains gold in a state of minute division. Sulphuret of iron (pyrites) is another accompanying mineral, which in many mines occurs in considerable quantities. Silver is occasionally found in connexion with the gold, and the sulphurets of copper and lead have been discovered in a few instances in the auriferous rock. The rocks forming the boundaries of the auriferous veins vary ; talcose and chlorite slates are the most usual. They are commonly of a soft texture, yielding readily to the blast, and even to the pick or spade. The rocks adjacent to the quartz are often auriferous, and in some instances have been found as productive as the quartz itself.

10. *Mineral Springs.* Mineral springs are numerous. The tract west of the Blue Ridge contains an unrivaled profusion of mineral waters of the most varied virtues, comprising thermal waters impregnated with free carbonic acid and nitrogen gasses, and holding also in combination a large amount of carbonic acid, chalybeate waters, and sulphuretted springs, abounding in sulphuretted hydrogen gas and various sulphates ; many of these fountains have acquired celebrity for their curative powers, and the freshness and salubrity of the air, and the alternate beauty and grandeur of scenery, add to the attractions of this region as a summer resort. The Botetourt, Augusta, Rawley, Shannondale, Yellow, and Alum springs, break forth from a pyritous slate, and are chalybeates or sulphuretted waters, according to the prevalence of the sulphuric acid or the iron. Further west, thermal springs issue from calcareous rocks, as in the Warm Spring and Sweet Spring Valleys ; the Hot Springs of the former, have a temperature of 106° ; the Warm Springs, of the same valley, of 98° ; and the Healing Springs, within a few miles of Hot Springs, are also of a high temperature. In the Sweet Spring Valley, the Sweet Springs have a temperature of 73°, and, with the Red Springs of the same quarter, hold in combination so large a proportion of carbonic acid, as to have a decided acidulous character. The celebrated group of sulphur wells, which have their distinctive names from the color of the various organic matters mixed with sulphur, which they deposit round their reservoirs, or in the channels of the issuing streams, lies beyond the Alleghany range, within a compass of about 30 miles ; these are the White and Blue Sulphur of Greenbriar, and the Red and Gray, with the Salt Sulphur of Monroe ; among which, the White Sulphur is the only thermal water, being of the temperature of 64°.

POLITICAL GEOGRAPHY.

1. ***Divisions.*** This State is divided into 116 counties,* comprised within two districts, the Eastern and Western.

* *Eastern District.*

Accomac
Albemarle
Amelia
Amherst
Bedford
Brunswick
Buckingham
Campbell
Caroline
Charles City
Charlotte
Chesterfield
Culpeper
Cumberland

Population at different periods.

	Whites.	Slaves.	Free Colored.	Total Colored.	Total Pop.
1790, ...	442,115	293,427	12,766	306,193	748,308
1800, . .	514,280	345,796	20,124	365,920	880,200
1810, ...	551,534	392,518	30,570	423,088	974,622
1820, ...	603,074	425,153	37,139	462,292	1,065,366
1830, ...	694,300	469,757	47,348	517,105	1,211,405
1840, . . .					

2. *Cities and Towns.* *Richmond*, the capital, stands on the north side of the James River, at its lower falls, and at the head of tide water. The town rises gradually from the water, and has a fine, picturesque appearance. The western division occupies an eminence called Shockoe Hill, overlooking the lower town. The capitol is built upon the highest summit, and has a delightful and commanding prospect. Two bridges cross the river to Manchester, on the opposite bank. Most of the houses are of brick, and many are elegant. The public buildings, beside the capitol, which is an elegant structure, are a court-house, a city hall, a State prison, 16 churches, the State armory, in which are manufactured 4 or 5,000 muskets and rifles annually, &c. The James River Canal here empties into a basin containing a surface of two acres. There is a boat navigation for 220 miles on the river, above the city. Richmond has a very flourishing trade, both inland and by sea, and enjoys extraordinary advantages by communication with a rich and well cultivated back country, abounding in tobacco, grain, hemp, lumber, iron, coal, &c. The annual value of its foreign exports is about 3,000,000 dollars ; that of its coastwise exports, probably exceeds that amount. The falls in the river afford an almost unlimited power, which is pretty largely applied to economical purposes. There are here 10 flour and grist mills, several iron-founderies and rolling-mills, cotton-mills, tobacco-factories, &c. About 800,000 bushels of wheat are ground here annually, and the Richmond flour bears a high price in foreign markets. The city is supplied with water from the river, by waterworks. Population, 20,000.

Norfolk, once the greatest commercial town, stands on an excellent harbor, at the outlet of the James River, where a branch called Elizabeth River joins the main stream. The town is built on low ground, and the land in the neighborhood is marshy. The principal streets are well paved and clean, but the others are less commodious, and more irregular. The buildings are not distinguished for elegance, but some of the churches are neatly built. Here are a theatre, an athenæum, a marine hospital, &c. The harbor is a mile wide, and strongly defended, and is 8 miles from Hampton Roads. At *Gosport*, in Portsmouth, on the opposite bank of Elizabeth River, is a navy-yard of the United States, with a dry dock. Population of Norfolk, 9,800. *Portsmouth* has a pleasant situation, and is regularly built.

Petersburg stands on the south bank of the Appomattox, 12 miles above its junction with

Dinwiddie
Elizabeth City
Essex
Fairfax
Fauquier
Fluvanna
Franklin
Gloucester
Goochland
Greenville
Halifax
Hanover
Henrico
Henry
Isle of Wight
James City
King and Queen
King George
King William
Lancaster
Loudon
Louisa
Lunenburg
Madison
Matthews
Mecklenburg
Middlesex
Nansemond
Nelson
New Kent
Norfolk
Northampton
Northumberland
Nottoway
Orange
Patrick
Pittsylvania
Powhatan
Prince Edward
Prince George
Prince William
Princess Anne
Rappahannock
Richmond
Southampton
Spottsylvania
Stafford
Surrey
Sussex
Warwick
Westmoreland
York

Western District.

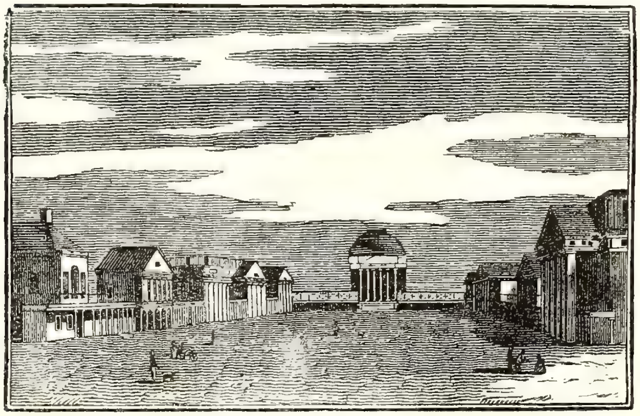
Alleghany
Augusta
Bath
Berkely
Botetourt
Braxton
Brooke
Cabell
Clarke
Fayette
Floyd
Frederick
Giles
Grayson
Greenbriar
Harrison
Hampshire
Hardy
Jackson
Jefferson
Kanawha
Lee
Lewis
Logan
Marshall
Mason
Mercer
Monongalia
Monroe
Montgomery
Morgan
Nicholas
Ohio
Page
Pendleton
Pocahontas
Preston
Randolph
Rockbridge
Rockingham
Russel
Scott
Shenandoah
Smyth
Tazewell
Tyler
Warren
Washington
Wood
Wythe

the James River, at City Point. It is a handsome and thriving town, and has a large trade in tobacco and flour. Above the town there are falls, which are applied to manufacturing purposes, but below, the river is navigable for vessels of 100 tons. Population, 10,000. *Fredericksburg* is on the south side of Rappahannock river, 110 miles above the Chesapeake. The river is navigable for vessels of 130 tons, and the town is surrounded by a fertile country. It is neatly and regularly built, and pleasantly situated. The trade of the place is considerable. Population, 4,000.

Lynchburg, on the south side of James River, 100 miles west of Richmond, stands on the slope of a hill, and is surrounded by a broken and mountainous country, abounding in fertile valleys. The town has a great trade in tobacco, and the neighborhood is populous, and well cultivated. Population, 4,000. *Williamsburg* is situated between York and James's rivers. It was once the capital of the State, and contains the College of William and Mary, a State-house, a court-house, and a State lunatic hospital. The plan of the town is regular, and the principal street is a mile long. The houses are chiefly of wood. *York*, or *Yorktown*, on the south side of York River, has an excellent harbor and some trade. It is memorable for the surrender of Lord Cornwallis and the British army, in 1781. These towns are in a languishing condition.

Mount Vernon, on the western shore of the Potomac, 15 miles from Washington, is worthy of the traveler's attention, as the residence of Washington, and the spot which contains his tomb. The mansion still remains, and is a wooden building no way remarkable for its appearance. There are handsome lawns and gardens around it, and the tomb is a simple excavation in the earth, walled with brick, and overgrown with cedars. It is often urged as a national reproach, that the remains of this great man do not repose in a sepulchre of suitable magnificence. In Westmoreland County, some distance below, is shown the spot of his birth, and a stone has been raised to mark the place.

Jamestown deserves notice, as the site of the earliest English settlement in the original United States; but while places of recent origin have grown into a magnitude, rivaling the great cities of Europe, Jamestown has fallen into decay, and is now completely desolate. The ruins of a church steeple mantled with ivy, and surrounded by tombstones, overgrown with shrubbery and wild flowers, are all that remain to mark the spot. The situation is eminently beautiful. On every side is a charming and variegated succession of woodlands, meadows, pastures, and cultivated fields; in front, is the broad expanse of James River. The hills opposite are picturesque, some entirely covered with wood; others partially cultivated, and exhibiting patches of waving corn, and dark forest, while here and there are scattered over the landscape, many elegant mansions of the wealthy planters. The whole view is strikingly rich and variegated. *Charlottesville*, near the foot of the Blue Ridge, contains the University of Virginia. Population, 2,000.


University of Virginia.

Danville, in the southern part of the State, on the Dan, is a place of some trade. Population, 2,000. In the Great Valley, *Winchester*, in the northern part, is the principal town; its business is extensive, being the mart for a considerable part of the valley. Population, 4,000. The flourishing town of *Harper's Ferry* contains a United States Arsenal of construction. Population, 2,500 *Staunton*, further north, is a thriving village, with 2,000 inhabitants; here is the Western State Lunatic Asylum.

The city of *Wheeling*, second in population only to the capital, stands on the Ohio, at the head of steamboat navigation during the season of low water, and at the western terminus of the Cumberland Road, or the eastern division of the great National Road from Cumberland to Alton. The city being built at the foot of the river-hills, which here approach very near its bed, occupies a long, narrow belt of about a mile and a half in length ; and to supply the necessary space for its extending business, *Lane's Island*, directly in front of the town, has been fixed upon and has received the name of Columbia City. Wheeling is one of the most flourishing manufacturing towns in the country, and owes its prosperity to the inexhaustible beds of coal that surround it, and to the easy transmission of its manufactures through the vast agricultural regions of the west and southwest ; coal is delivered at the manufactories for from 2 to 3 cents a bushel. In 1820 its population was 1,567 ; at present, it exceeds 11,000. There are in the city 30 steam-engines and 140 manufacturing establishments, producing annually goods to the value of 2,000,000 dollars ; and within a circuit of 25 miles, there are 134 flour-mills, making annually 280,000 barrels of flour, worth nearly as much more. Among the manufactories are ten iron-founderies, steam-engine and machine shops, and rolling-mills, 6 glass-works, paper-mills, tanneries, &c. The trade of Wheeling is also extensive ; the annua arrivals and departures of steamboats being 1,600, and the flat boats and wagons constantly employed, the latter on the National Road to the east, are numerous. *Wellsburg*, further up the river, owes its growth to the same causes, containing several cotton and woolen factories, glass-works, paper, flour, and saw mills, iron founderies, &c. Population, 2,000. *Charleston*, on the Kanawha, has about 1,000 inhabitants.

3. *Canals.* The works for the promotion of internal communication in this State have been mostly executed by incorporated companies, with the assistance of the government. The Internal Improvement Fund, vested in a Board of Public Works, consist of a productive capital of about 2,000,000, yielding an annual income of about 115,000 dollars. In 1837, the legislature appropriated upwards of 4,000,000 to aid in the execution of certain works, several of which have not, however, been begun. The navigation of the Shenandoah, Rappahannock, James, Appomattox, Rivanna, and Dan, has been improved by short canals, locks, and dams, at an expense of about 2,000,000 dollars. The *Dismal Swamp Canal*, connecting Chesapeake Bay with Albemarle Sound, extends from Deep Creek, a tributary of Elizabeth River, to Joyces's Creek, an arm of the Pasquotank in North Carolina, 22½ miles, with a feeder of 5 miles from Lake Drummond, and a branch, 6 miles in length, to the Northwest River ; it was completed in 1822, but has since been enlarged ; cost, 879,864 dollars. Lake Drummond is connected with the river Nansemond by a canal 10 miles in length. The James River and Kanawha communication is the most important work that has been undertaken in Virginia. Canals round the falls above Richmond, and those in the Blue Ridge, afford a navigation in high stages of the water to Covington. But in 1832, a company was incorporated with a capital of 5,000,000 dollars, of which the State has subscribed two fifths. for extending these works ; the project embraces a continuous canal from Richmond to Covington, of which 150 miles, to Lynchburg, are now far advanced towards completion, and a railroad from Covington to the Great Falls of the Kanawha.

4. ***Railroads.*** A continuous line of railway extends across the State from the Potomac to the Roanoke, of which the following are links : — The ***Richmond and Potomac Railroad***, extending from Potomac Creek in Stafford, through Fredericksburg to Richmond, 70 miles ; the ***Richmond and Petersburg Railroad***, between those two cities, 22 miles ; and the ***Petersburg and Roanoke Railroad***, from the former place to Blakely, in North Carolina, 59 miles ; the ***Greensville Railroad***, from near Belfield to Gaston, on the Roanoke, was constructed for the purpose of striking the river higher up ; the ***City Point Railroad***, extending from Petersburg to the James River, 10 miles, connects the Roanoke with the deep water of the Chesapeake ; the ***Portsmouth and Roanoke Railroad*** forms a second junction of the Roanoke and Chesapeake, extending from Weldon to Portsmouth, 78 miles ; the *Chesterfield Railroad* connects the coal-pits of Chesterfield with the James at Richmond, 13 miles, and there are other shorter roads extending from coal mines to the James River above Richmond ; the ***Louisa Railroad*** extends from Louisa court-house to the Richmond and Fredericksburg Railroad, near the mouth of the South Anna, 40 miles ; the ***Winchester and Potomac Railroad*** extends from Winchester to Harper's Ferry, 30 miles, where it is connected with the Baltimore and Ohio Railroad, by a viaduct over the Potomac.

5. *Agriculture.* Agriculture has always been the chief occupation of the inhabitants, but not to the exclusion of other branches of industry. There is a great diversity in the agriculture of the State, but it is for the most part badly conducted. The old practice of cultivating land every year until exhausted, and then leaving it to recover from its own resources, still continues in many places. In others the three-shift system prevails ; that is, first, a crop

Indian corn, second, wheat, rye, or oats, and third, the year of rest, as it is called, in which the stock are permitted to glean a scanty subsistence from the spontaneous vegetation; after which it is again subjected to the same process, while little attention is paid to the application of manures or the artificial grasses. This system prevails particularly on the south side of the James River. On the north side of that river, especially towards the Potomac, cultivation is much better; rotation of crops is attended to, grass seeds are sown on the small grain; manures are judiciously applied, and gypsum is used to a great extent. In the valley district, also, a good system of cultivation is pursued, and irrigated meadows are common and very productive. On both sides of the Blue Ridge, maize or Indian corn, wheat, rye, oats, and buckwheat, are the principal grain crops. Tobacco is the principal staple of most of Eastern Virginia, but in the valley is cultivated only in the southern portion, and not at all beyond the Alleghany. In the eastern and southern counties, cotton is planted to a considerable extent. On the shores of the Chesapeake, barley and the castor-oil bean are cultivated, and on some of the best lands above tide-water, hemp is raised to advantage. The Trans-Alleghany country, being exceedingly mountainous and remote from market, is chiefly devoted to raising live stock. No more grain is raised than is sufficient to supply the country itself, and the travelers and stock-drovers who pass through it; the climate and soil are very favorable to grass, and afford excellent pastures.

Tobacco Plant.

The culture of tobacco was begun as early as 1616, and that plant formed the staple of the colony. During the latter half of the last century the annual export amounted to 60,000 and 70,000 hogsheads; of late years the amount produced in Eastern Virginia has fallen off considerably on account of the exhaustion of much of the land suited to this crop, but its cultivation has been much extended beyond the Blue Ridge. The crop does not now exceed 40,000 hogsheads. Cotton is raised chiefly for home consumption; the crop amounts to about 30,000 bales. Indian corn was a long time almost the only grain raised in Virginia, and it was not until toward the close of the last century, that wheat became the principal agricultural staple of the State. At present, Richmond is one of the great flour markets of the country, and the Richmond brands have a high reputation in foreign ports. The quantity of flour annually inspected is from 500,000 to 600,000 barrels, but this does not indicate the whole amount produced. In the Eastern Shore counties the palma christi or castor-oil bean is an important crop; the land requires the same preparation as Indian corn, and the bean is sown like that grain, and the subsequent tillage is much the same; the yield is from 25 to 40 bushels per acre, and a bushel of seed by pressure and boiling, gives about 2 gallons of oil, the pumice or refuse matter furnishing a valuable manure. Neat cattle, horses, mules, and hogs, wool, beef, pork, bacon, butter, and lard, are exported from the grazing district.

6. *Manufactures.* The manufactures of Virginia are by no means inconsiderable in value and extent, but they are not in general of the class which involve the nicer and more complicated process of art, consisting rather of those simpler operations, which convert the native growth of the forest, the products of the mineral kingdom, or the fruits of agricultural labor, into articles of home consumption or commerce. Thus the preparation of ginseng and maple sugar, of lumber and scantlings, of tar, pitch, and turpentine, the manufacture of salt and saltpetre, the quarrying or mining of coal, lead, iron, &c., and the manufacture of cast and bar iron, tanning, the manufacture of flour, linseed, cotton seed, and castor-oil, snuff, cigars, and chewing tobacco, the making of hats, shoes, and boots, household furniture, agricultural implements, cordage, pottery, &c., ship and boat building, are among the prominent branches of mechanical industry; but cotton and woolen goods, paper, glass, steam-engines, cannon, fire arms, &c., are also enumerated among its products.

The forests and the coal beds furnish a cheap and easy supply of fuel, and the numerous water-falls offer an almost unlimited motive power for economical purposes, and within the last few years several cotton mills have been erected, partly for spinning, and partly for spinning and weaving, in which white operatives have sought employment ; there are now about 20 of these cotton-factories, chiefly in Eastern Virginia.

7. *Commerce.* The exports of Virginia consist chiefly of the agricultural products already mentioned, lumber, salt, castor-oil, ginseng, coal, gold, some furs, &c. ; their actual amount we have no means of ascertaining ; the value of the direct exports to foreign countres is about 5,000,000 dollars, but the trade with the Northern States, the overland trade with Maryland, Pennsylvania, Kentucky, Ohio, Tennessee, and North Carolina, and the river-trade by the Ohio and Tennessee, must exceed that sum. The annual imports from foreign ports are less than 1,000,000 ; but Virginia receives her supplies of manufactured goods, foreign and domestic, and other foreign productions, chiefly from northern ports. The fisheries of the Chesapeake and its tributaries are valuable. The shipping owned in the State amounts to 50,000 tons.

8. *Government.* The legislature consists of a Senate and House of Representatives. The senators are 32 ; they are elected by districts, and hold their office 4 years, one quarter of their number being renewed every year. The representatives are chosen yearly. These elections are made *vivâ voce*, and not as in other States, by ballot. The Governor is elected for 3 years, by the two branches of the legislature, and is eligible but once in 6 years. There is a council of 3, chosen like the Governor ; the senior councillor is Lieutenant-Governor. The right of voting comes very near to universal suffrage. Clergymen are ineligible as legislators. No legislative provision can be made for religious worship. The State sends 21 representatives to Congress.

9. ***Religion.*** The most numerous sect in Virginia are the Baptists, who have 437 churches ; the Presbyterians have 120 ; the Episcopalians 65 ministers ; the Methodists 170. There are also Lutherans, Catholics, Unitarians, Friends, and Jews in small numbers.

10. ***Education.*** ***William and Mary College*** was founded at Williamsburg in 1691. King William endowed it with 2,000 pounds, 20,000 acres of land, and a revenue of a penny on every pound of tobacco exported from Virginia. Other endowments were afterwards added, and its income was formerly 3,000 pounds a year, but it is now much reduced. It has at present 5 instructers and 110 students ***Hampden Sydney College***, in Prince Edward's county, was founded in 1783. It has 6 instructers, and 60 students. ***Washington College***, at Lexington, was founded in 1812, and it has 40 students. The ***University of Virginia***, at Charlottesville, was founded in 1819. It has 9 instructers, and 230 students. The library has 15,000 volumes. ***Randolph-Macon College***, at Boydton, founded in 1832, has 100 students. The State has a literary fund of 1,550,000 dollars.

11. ***History.*** Virginia was the earliest settled of all the British American colonies. An expedition was despatched by the London Company, under Captain Newport, who was accompanied by Gosnold and the celebrated Captain Smith. They entered the Chesapeake, and discovered James's River, in April, 1607. A settlement was immediately formed at Jamestown, but the colonists soon began to suffer severely by famine and the hostility of the natives. Smith was taken prisoner, and, when on the point of being put to death by the savages, was rescued and released by the romantic generosity of Pocahontas, the King's daughter. The affairs of the colony after this, fell into so bad a state, that all the settlers embarked, and were under sail to leave the country, when several ships arriving with supplies, they were induced to return. From this period, the settlement began to thrive, though much harassed by Indian wars. Charles the First conferred upon the inhabitants the right to elect representatives ; in return for which favor, the Virginians adhered to the royal interests during the civil wars which preceded his overthrow. The parliament, in 1652, sent a fleet which brought them to submission, and for 9 years, Cromwell appointed the Governor of the colony. After the Restoration, Virginia was much disturbed by a civil war in her own territory, but the Governor continued to be appointed by the King till the beginning of the American Revolution. In 1776 a new constitution was formed ; and in 1830, it was revised by a Convention for that purpose. The inhabitants of Virginia were from the beginning strongly averse to the introduction of slaves, and their legislatures passed many laws to prohibit it, but the refusal of the higher officers of government to sanction the laws, rendered these efforts fruitless.

CHAPTER XX. NORTH CAROLINA

PHYSICAL GEOGRAPHY

1. ***Boundaries and Extent.*** North Carolina is bounded north by Virginia ; east by the Atlantic ocean ; south by South Carolina and Georgia, and west by Tennessee. It extends from 33° 50′ to 36° 30′ north latitude, and from 75° 25′ to 84° 30′ west longitude. It is about 450 miles in length, by 185 in breadth, with an area of 50,000 square miles.

2. *Mountains.* The western part of the State is traversed by the 3 easternmost chains of the Appalachian system, the ***Southeast Mountain***, the ***Blue Ridge***, and the ***Kittatinny Mountains.*** The latter chain, under various local names, as the *Stone Mountain*, ***Iron Mountain***, ***Bald Mountain***, and *Smoky Mountain*, form the western boundary of the State. ***Black Mountain***, in this region, reaches the height of 6,475 feet, being the loftiest summit east of the Mississippi. The ***Roan Mountain*** is 6,000 feet high, and there are others little inferior. *Mount Ararat*, or ***Pilot Mountain***, is a lofty pyramidal peak, in Stokes county. ***King's Mountain*** is a hilly ridge, extending from Lincoln county, into York District in South Carolina.

3. *Rivers.* The *Roanoke* and ***Chowan***, which rise in Virginia, empty themselves into Albemarle Sound, in this State. The latter is navigable for small vessels to Murfreesboro'. The Roanoke has a course of 400 miles ; it is navigable for small vessels 30 miles, and for boats to the head of the tide at Weldon, 75 miles. Above the falls at Weldon, it is navigable for boats, by the aid of canals, 244 miles, to Salem. The *Tar*, or ***Pamlico***, and ***Neuse***, flow into Pamlico Sound. The former is navigable for vessels drawing 9 feet of water, 30 miles, and for boats to Tarboro', 90 miles. *Cape Fear River* is the principal stream, which has its whole course in this State. It rises in the north part, and traversing the State in a southeasterly course of 280 miles, falls into the Atlantic at Cape Fear. It is navigable for vessels of 11 feet draft to Wilmington, and for boats to Fayetteville. The *Yadkin* traverses the western part of the State, from north to south, and passes into South Carolina, under the name of the *Great Pedee.* The *Catawba* rises in the Blue Ridge and flows south into South Carolina From the opposite slope of the mountains, descend the head streams of the river Tennessee.

4. *Islands.* The coast is skirted by a range of low, sandy islands, thrown up by the sea. They are long and narrow, and enclose several shallow bays and sounds. They are generally barren.

5. *Sounds and Bays.* The largest is ***Pamlico Sound***, lying between the mainland and one of the abovementioned islands. It is 86 miles in length along the coast, and from 10 to 20 broad. It communicates with the ocean by several narrow mouths, the most common of which for navigation is Ocracoke Inlet. A little to the north is *Albemarle Sound*, which extends 60 miles into the land, and is from 5 to 15 miles wide. It communicates with Pamlico Sound, and with the sea, by several narrow and shallow inlets.

6. *Shores and Capes.* The shores are low and marshy, and the navigation along the coast dangerous, on account of the shoals. ***Cape Lookout*** and ***Cape Fear***, indicate by their names the dread with which mariners approach them. But the most formidable is ***Cape Hatteras***, the elbow of a triangular island, forming the seaward limit of Pamlico Sound. Its shoals extend a great distance from the land, and render it one of the most dangerous headlands on the American coast.

7. *Face of the Country.* The eastern part of the State, for a distance of about 60 miles from the sea, is a low plain covered with swamps, indented by numerous shallow inlets from the ocean, and traversed by sluggish streams, which the low and level surface allows to spread out into broad basins. To this maritime belt, succeeds a fine, undulating country, irrigated with fresh, running waters, and presenting a surface agreeably diversified with hills and valleys. The western part of the State is an elevated table-land, rising to a general elevation of about 1,800 feet above the level of the sea, independently of the mountainous summits.

8. *Climate.* In that small part of the State toward the west, which is mountainous, the climate is temperate, and the air salubrious ; this region is one of the most healthy in the country, and though the days in summer are hot, the nights are refreshed by cool breezes. In all the eastern parts, the climate is unhealthy, and intermittent fevers are common in summer and autumn The inhabitants have a pale, yellowish, and bilious complexion. The winters are

very mild The wheat harvest takes place in the beginning of June ; the maize harvest early in September.

9. *Soils.* In the level country generally, the soil is poor and sandy, with large, swampy tracts. The banks of some of the rivers are tolerably fertile, and there are some glades of moist land, possessing a black, fruitful soil. West of the hilly country, the soil is good, and resembles that of the States further north. The *Great Dismal Swamp* lies in the northeastern part of the State, and extends into Virginia. It is 30 miles in length, and 10 in breadth, and covers an extent of 150,000 acres ; the soil is marshy, and the whole tract is overgrown with pine, juniper, and cypress trees, with white and red oak in the drier parts. In the centre of it is a pond 15 miles in circuit. Many parts of the swamp are impervious to man, from the thickness of the woods and bushes. A canal is carried through it from Norfolk to Albemarle Sound. Between Albemarle and Pamlico Sound is another, called *Alligator*, or *Little Dismal Swamp*, which also has a pond in the centre ; this has been partly drained by means of a canal, and the land rendered fit for the cultivation of rice. It is estimated, that there are 2,500,000 acres of swampy land within the State, capable of being drained at a trifling cost, and fitted for the culture of cotton, tobacco, rice, and maize. These swamps have a clay bottom, over which lies a thick stratum of vegetable compost. The drained lands are found to be exceedingly fertile.

10. *Geology, Minerals.* The low country consists of deposits of sand and clay, similar to those of Eastern Virginia, and belonging to the same geological age ; these tertiary beds are not rich in minerals, but they comprise extensive deposits of shell-marl, fossiliferous limestones, copperas, and bog-iron ore. The line dividing the flat tertiary plain from the upper country, crosses the Neuse near Smithfield, and the Cape Fear, near Averasboro, and is indicated by a ledge of micaceous rock. West of this line is a belt of mica-slates, chlorite slates, gneiss, and granites. Among the minerals of this tract are the hematitic iron ores of Nash and Johnston, formerly wrought to advantage, and the plumbago or black-lead of Wake ; soapstone, and serpentine also occur. A belt of sandstone succeeds to this primary strip, extending southwesterly from Granville quite across the State ; coal has been discovered in Orange and Chatham ; the sandstone furnishes good freestones and grindstones ; argillaceous iron ore, the usual accompaniment of coal-measures also occurs in this formation. Parallel with the freestone and coal formation, on the west, lies the great slate formation of North Carolina. It extends across the State from northeast to southwest, covering more or less of the counties of Person, Orange, Chatham, Randolph, Montgomery, Cabarrus, Anson, and Mecklenburg. Its breadth is about 20 miles. Within this district are found numerous beds of porphyry, soapstone, serpentine, greenstone, and hone or whetstone slate. Manganese, specular oxide of iron, and brown hematites occur here. The novaculite or honestone is of a superior quality, and is preferred by the mechanics to the best Turkey hones of the market. A second belt of primary rocks extends from the slate formation nearly to the Blue Ridge, and comprises the Gold Regions of North Carolina ; most of the gold has been procured from washings, and not from the veins in the quartzose rocks ; it has been found in Guilford, Davidson, Randolph, Montgomery, Anson, Mecklenburg, Cabarrus, Rowan, Rutherford, and perhaps other counties, but we have no account of the actual quantity obtained. The famous mass which weighed 28 pounds, was found at Reed's Mines in Cabarrus, and other large lumps have been found, but they are rare. " Various marvellous stories are told respecting this rich mass ; as that it had been seen by Gold Hunters at night, reflecting so brilliant a light, when they drew near to it with torches, as to terrify them and deter them from further examination." The gold from some of these mines is remarkable for its purity, and when found is kept in goose-quills, and exchanged by weight, constituting a part of the currency of the country. Iron ore is also found in Rockingham, Stokes, Surrey, and Lincoln, and has been pretty extensively wrought ; it is chiefly the magnetic oxide. Of the mineral resources of the more western counties we know little.

11. *Vegetable Productions.* A great part of the country is covered with forests of pitch pine. In the plains of the Low Country, this tree is almost exclusively the natural growth of the soil. It much exceeds in height the pitch pine of the Northern States. The tar, turpentine, and lumber afforded by this valuable tree, constitute one half the exports of the State. The moisture of the air, in the swampy regions, loads the trees with long, spongy moss, which hangs in clusters from the limbs, and gives the forest a singular appearance. The mistletoe is often found upon the trees of the interior. This State also produces several valuable medicina

roots, as ginseng, Virginia and seneca snakeroot, &c. The rich intervals are overgrown with canes, the leaves of which continue green through the winter, and afford good fodder for cattle.

12. *Mineral Springs.* There are thermal saline springs in Buncombe county, called the Warm Springs. The water is limpid, and gives out nitrogen gas. It contains muriates and sulphates of lime and magnesia. Chronic rheumatism and paralysis are among the diseases cured by drinking the water and bathing in it.

POLITICAL GEOGRAPHY.

1. *Divisions.* This State is divided into 66 counties.*

Population at different Periods.

	Whites.	Slaves.	Free Colored.	Total Colored.	Total Pop.
1790	288,204	100,572	4,975	105,547	393,751
1800	337,764	133,296	7,043	140,339	478,103
1810	376,410	168,824	10,266	179,090	555,500
1820	419,200	205,017	14,612	219,629	638,829
1830	472,843	245,601	19,543	265,144	737,987
1840					

2. *Towns* *Raleigh*, the seat of government, is situated on the Neuse, near the centre of the State. It is regularly laid out, with some handsome buildings, but it is not a thriving place. Population, 2,000. The State-house at this place was destroyed by fire, in 1831. This disaster was accompanied with the further and irreparable loss of Canova's admired statue of Washington ; but a handsome capitol of granite has been erected in the place of the former building.

Newbern is the largest town in the State. It stands on the Neuse, 30 miles above Pamlico Sound. Vessels from the sea ascend to this place, and it has a considerable trade in exporting timber, grain, and tar. This town has a theatre, and was once the seat of government. Population, 4,000.

Fayetteville, on Cape Fear River, at the head of boat navigation, has a trade in grain, flour, tobacco, and naval stores. Fayetteville contains a United States Arsenal of construction. Population, 3,000.

Wilmington, on Cape Fear River, 34 miles from the sea, is a commercial town, and the port for the trade of Fayetteville. In commerce, it is the first town in the State ; but its harbor is not commodious for large vessels, being, like most others on this coast, barred with sand. The railroad to the Roanoke adds to the business and importance of Wilmington. Population, 4,000.

Charlotte, in the interior, is a growing and prosperous town, with 2,000 inhabitants. Here is a branch of the United States mint, for the coinage of gold. *Salisbury*, in the same region, has about 1,300 inhabitants.

3. *Agriculture.* The industry is almost wholly agricultural. The great diversity of climate between the eastern lowlands and the western high country, causes a corresponding diversity in the produce ; the former yielding cotton, rice, and indigo ; and the latter, Indian corn, wheat, hemp, and tobacco. The cotton crop does not exceed 30,000 bales. The mountainous districts are more generally appropriated to grazing, and large herds of cattle and horses are raised

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[*] Anson
Ashe
Beaufort
Bertie
Bladen
Brunswick
Buncombe
Burke
Cabarrus
Camden
Carteret
Caswell
Chatham
Chowan
Columbus
Craven
Cumberland
Currituck
Davidson
Davie
Duplin
Edgecombe
Franklin
Gates
Granville
Greene
Guilford
Halifax
Haywood
Hertford
Hyde
Iredell
Johnston
Jones
Lenoir
Lincoln
Macon
Martin
Mecklenburg
Montgomery
Moore
Nash
New Hanover
Northampton
Onslow
Orange
Pasquotank
Perquimans
Person
Pitt
Randolph
Richmond
Robeson
Rockingham
Rowan
Rutherford
Sampson
Stokes
Surry
Tyrrell
Wake
Warren
Washington
Wayne
Wilkes
Yancey

4. *Manufactures.* Manufactures can hardly be said to exist, except in the shape of household industry; but during the last few years, several large cotton-mills have been erected, and carried on successfully, and there are a few paper-mills in the State.

5. *Commerce.* The dangers of the coast, and the want of good harbors, as well as the deficiency in channels of transportation, carry a great proportion of the trade of North Carolina to Virginia, South Carolina, and Tennessee, and we have no means of estimating its amount. The pine forests of North Carolina, which cover nearly the whole of the eastern part of the State, yield not only much lumber for exportation, but also nearly all the resinous matter used in ship-building in this country. The resinous products are turpentine, scrapings, spirits of turpentine, rosin, tar, and pitch; turpentine is merely the sap of the tree, obtained by making an incision in the bark; the turpentine flows out in drops, which fall into a box placed to receive them; the incisions are generally made about the middle of March, and the flow of turpentine usually ceases about the end of October; the boxes are emptied 5 or 6 times in the course of the year; on an average, 40 trees will yield a barrel of turpentine, and about a third of that amount of scrapings, or that part of the sap which becomes hard before it reaches the box. Oil or spirits of turpentine is made by distillation, during which process, the oil comes over, and leaves a residuum called rosin. Tar is made by burning billets of pine under a heavy covering of turf or earth; a slow combustion without flame is thus caused, and the tar which exudes is collected, by means of a trench, into a cavity dug in the ground for the purpose. The tar of the north of Europe is preferred in Europe to that of the United States, as it is much cleaner, better packed, and made from trees recently felled. Pitch is obtained from tar, by boiling it down to dryness. The lumber furnished by this vast forest, includes ship-timber, shingles, staves, &c.

6. *Canals and Railroads.* Little has hitherto been done in this State towards extending the facilities for transportation, although the most important productions are of a bulky nature, requiring cheap and easy modes of conveyance, and the character of the country offers many advantages for canalisation. The *Dismal Swamp Canal* lies partly in this State, and the *Northwest Canal*, a branch of that work, is wholly within its limits; much of the trade of the northeastern counties takes this channel. The *Clubfoot and Harlow Canal* is a short work extending from the Neuse to the harbor of Beaufort, and there are several short cuts round falls or shoals in the Roanoke, Tar, Cape Fear, and Yadkin. The *Portsmouth and Roanoke Railroad*, terminating at Weldon, the *Petersburg and Roanoke Railroad*, terminating at Blakely, and the *Greensville Railroad*, extending from Bellfield, in Virginia, to Gaston, are Virginia works, and tend to divert the trade of the northern counties to the Virginia marts. The *Wilmington and Raleigh Railroad* extends from the former place, by Wanesboro, and near Nashville and Enfield, through Halifax, to Weldon, 170 miles. A line of steamboats from Wilmington to Charleston, 150 miles, is connected with this route, which thus forms a link in the great chain of works from Maine to the Gulf of Mexico. The *Raleigh and Gaston Railroad*, from the capital to the Roanoke, is 85 miles long.

7. *Government.* The legislature is styled the General Assembly, and consists of a Senate of 50, and a House of Commons of 120 members. The Governor is chosen biennially by the people. Voters for senators must be freeholders. The clergy are excluded from the legislature. The State sends 13 representatives to Congress.

8. *Religion.* No person who denies the being of a God, or the truth of the Christian religion, or the divine authority of the Old and New Testament, or who holds religious principles incompatible with the freedom or safety of the State, can hold any office or place of trust or profit in the civil department, within the State. The Methodists number upwards of 20,000 communicants; the Baptists, nearly the same number; and the Presbyterians, 11,000. The less numerous sects are the Episcopalians, who have 1 bishop and 20 ministers; the Lutherans, with 40 societies and 2,000 communicants; the Moravians, or United Brethren, with 4 congregations; some Roman Catholics, Friends, &c.

9. *Education.* The *University of North Carolina*, at Chapel Hill, was founded in 1791. It has 9 instructers, and 140 students. Its libraries have about 5,000 volumes. *Davidson College*, in Mecklenburg county, was founded in 1837. The State has a literary fund, but its income has not yet been applied to the purposes of education.

10. *History.* This State was visited by persons sent out by Sir Walter Raleigh, in 1584, who landed and traded with the natives at Pamlico and Albemarle Sounds. The next year, a settlement was attempted on the island of Roanoke, in Albemarle Sound, but after two or three

years, it was abandoned, and this part of the country was for a long time neglected. The first permanent settlements were made by the fugitives and seceders from Virginia, who, between 1640 and 1650, fled beyond the limits of that State to avoid religious persecution. A patent for the territory had been previously granted by Charles the First, but no effectual use had been made of it. After the above settlement, the patent was transferred (1663) to Lord Clarendon and some others, and a government was organized. The constitution, subsequently formed for the colony, is a remarkable document in American history, for it was the work of the celebrated John Locke. The chief magistrate was called the Palatine, and there was a hereditary nobility, with the titles of Landgrave and Cazique. The legislature was called a parliament. This constitution was found upon trial to be ill adapted to the character of the people, and it was abolished in 1693. A government similar to those of the other American colonies, succeeded it. This colony had been connected with that of South Carolina, till 1729, when they were separated, and the government of both was assumed by the King. This continued till the breaking out of the Revolution. The present constitution was established in 1776, but was revised and modified in 1835.

CHAPTER XXI. SOUTH CAROLINA.

PHYSICAL GEOGRAPHY.

1. ***Boundaries and Extent.*** This State is bounded N. by North Carolina; E. by the ocean; S. and W. by Georgia. It extends from 32° to 35° 8′ N. lat. and from 78° 24′ to 83° 30′ W. long., being 270 miles long and 125 broad, and containing 33,000 square miles.

2. ***Rivers.*** The *Great Pedee* rises in North Carolina, where it is called the Yadkin, and flows to the sea through the eastern part of this State; it has a sloop navigation of 130 miles. The *Santee* is formed by the union of the Wateree and Congaree, which rise also in North Carolina. It is navigable about the same distance as the preceding. The *Edisto* has a boat navigation for 100 miles, and the *Savannah* washes the whole southwestern limit of the State. All the rivers of South Carolina flow through a level country, and their waters are generally sluggish and shallow.

3. ***Islands.*** The southern part of the coast is skirted by a range of islands, separated from the main land by narrow channels, which afford a steamboat navigation. These islands, like the neighboring continent, are low and flat, but are covered with forests of live oak, pine, and palmettoes. Before the cultivation of cotton, many of them were the haunts of alligators, and their thick woods and rank weeds rendered them impenetrable to man. At present, they are under cultivation, and well inhabited; and as the voyager glides by their shores in a steamboat, he is enchanted with the prospect of their lively verdure, interspersed with thick clumps of palmettoes, and flowering groves of orange trees. The live oak, which is so called on account of its being an evergreen, is a noble tree, with a trunk sometimes 12 feet girth; its long branches are spread horizontally, and festoons of moss hang from them almost sweeping the ground. The laurel is here seen covered with large, white blossoms, shaped like a lily, and a foot in circumference. The long sandy beaches, which border these islands toward the sea, are covered with thousands of water fowl.

4. ***Harbors.*** Like those of North Carolina, the harbors of this State are generally bad. That of Charleston is obstructed at the entrance by a dangerous sand-bar; that of Georgetown will only admit small craft. The harbor of Beaufort, or Port Royal, is the best in the State, but is little frequented.

5. ***Shores.*** The whole seacoast is low and level, with long sandy beaches, and without any prominent headlands.

6. ***Climate.*** The climate is hot, moist, and unhealthy. In summer the heat of the day continues with little abatement through the night, and a comfortable sleep is a blessing not always to be enjoyed. Fevers, generated by the influence of a hot air upon a moist soil, are common. The summer continues from 7 to 8 months, or from March to November. In winter, there are often frosts which kill the tender plants, and the orange trees; but they seldom continue longer than three or four days, or penetrate the earth deeper than two inches In the lower parts of the State there is seldom any snow. In the northwestern part, the land is mountainous, and the climate generally salubrious, with a drier air, and a colder winter.

7. ***Soil.*** In this particular, this State resembles North Carolina. The western part has a

lofty and broken surface, but the whole of the State, toward the sea, is flat and swampy. The high land and much of the low country, are fertile, but there are some parts of a different character, denominated Pine Barrens. The soil is divided by the planters into 1. the tide swamp, and 2. inland swamp, which are best adapted to the cultivation of rice and hemp ; 3. high river swamp, or second low grounds, favorable to the growth of hemp, corn, and indigo ; 4. salt marsh ; 5. oak and hickory high land, which is highly fertile, and yields corn, cotton, and indigo ; and 6. pine barren, which, though the least productive, is the most healthy soil of the low country. A portion of the last is considered as a necessary appendage to every swamp plantation, for erecting the dwelling-house of the planter. The hilly portion consists of a comparatively small tract, in the northwestern extremity.

8. *Minerals.* Veins of gold exist in this State, and it is probable that the metal is abundant ; but mines have not yet been extensively worked.

9. *Vegetable Productions.* The indigenous vegetation of this State combines the productions of the temperate and tropical regions, comprising the oaks and palms, pines and hickory. The palmetto or cabbage-palm attains the height of from 40 to 50 feet, and yields a substance which is eaten as a salad, and resembles the cabbage in taste.

10. *Face of the Country.* The coast for 100 miles from the ocean, is covered with forests of pitch pine, with swampy tracts here and there. Beyond this, is a parallel belt of territory, called the Middle Country, consisting of low sand hills, resembling the waves of an agitated sea. This tract occasionally presents an oasis of verdure, or a few straggling pine trees, and sometimes a field of maize or potatoes. The middle country is bounded by another belt of land called the Ridge, where the country rises by a steep and sudden elevation, and afterwards continues gradually to ascend. Beyond, the surface exhibits a beautiful alternation of hill and dale, interspersed with extensive forests, and watered by pleasant streams. There are a few lofty mountains in the western part.

POLITICAL GEOGRAPHY.

1. *Divisions and Population.* South Carolina is divided into 29 districts.* In the low country the slaves exceed the whites three to one, that section containing only about one fifth of the whites with half of the black population.

Population at Different Periods.

	Whites.	Slaves.	Free Colored.	Total Colored.	Total Pop.
1790	140,178	107,094	1,801	108,895	249,073
1800	196,255	146,151	3,185	149,336	345,591
1810	214,196	196,365	4,554	200,919	415,115
1820	237,440	258,475	6,826	265,301	502,741
1830	257,863	315,401	7,921	323,322	581,185
1840					

2. *Canals.* The *Santee Canal* connects that river with Cooper River, which runs into Charleston harbor ; it is 22 miles long, 35 feet broad at the surface, and 4 feet deep. It has 9 locks, overcoming 68 feet of ascent from Cooper River to the summit level, and 4 locks with 35 feet descent to the Santee. The cost of this canal was 650,667 dollars. It was finished in 1802. The *Wateree Canals* pass around the falls upon that river, above Camden. There are canals upon Broad and Saluda rivers, which, in connexion with the rivers below, and the Santee Canal, constitute an inland navigation, 150 miles, from Charleston to Cambridge, in the western part of the State.

3. *Railroads.* The *Charleston and Augusta Railroad* extends from Charleston to Hamburg, on the Savannah, opposite Augusta. Length, 135 miles. The *Charleston and Cincinnati Railroad* is a great projected work, 600 miles in length. The portion of it in South Carolina is in progress, and extends through Columbia to the northwestern section of the State

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* Abbeville
Anderson
Barnwell
Beaufort
Charleston
Chester
Chesterfield
Colleton
Darlington
Edgefield
Fairfield
Georgetown
Greenville
Horry
Kershaw
Lancaster
Laurens
Lexington
Marion
Marlborough
Newberry
Orangeburg
Pickens
Richland
Spartanburg
Sumter
Union
Williamsburg
York.

4. *Cities and Towns.* *Charleston*, the commercial metropolis, and formerly the seat of government, is built upon a point of land at the junction of Ashley and Cooper rivers. Its harbor is capacious, but difficult of entrance. The city is regularly built, and though the site is low, the approach to it by water is particularly fine. Many of the streets are very handsome, and most of the houses are furnished with piazzas to each story. In the outer parts of the city, the houses are surrounded with gardens, and ornamented by trees and shrubbery. Groves of orange and peach trees in bloom, present here a most inviting appearance to the traveler, who arrives from the North in the early season. The most remarkable edifices of this city, are the Orphan Asylum, and the Circular Church. In the former, 130 orphan children are maintained from the proceeds of an ample endowment for that purpose. The city hall, exchange, two arsenals, the citadel, marine hospital, academy of fine arts, &c., are the other public buildings. There are numerous other charitable institutions. The Charleston library contains 14,000 volumes. There is also a college in the city, and an excellent medical institution. During the winter, this city is much frequented by strangers, from different parts of the country. At this season, it is found a very agreeable residence. In the summer the neighborhood is unhealthy, yet the city is seldom visited by the common epidemics of the South. The commerce of Charleston consists chiefly in the export of cotton and rice. Population, 40,000, half of whom are blacks. *Moultrieville*, on Sullivan's Island at the mouth of the harbor, is a pleasant summer resort.

There is no other large town in the State. *Columbia* is the seat of government. It stands on the Congaree, near the centre of the State, and occupies an elevated plain, sloping gently on every side. The plan of the town is regular. It contains a college, and 4,000 inhabitants. *Georgetown*, at the head of Winyaw bay, formed by the junction of the Great Pedee, Waccamaw, and two or three other streams, is 13 miles from the sea, and has considerable commerce. Population, 2,000. *Beaufort*, on the island of Port Royal, is a pleasant town, with a healthy situation, and good harbor; but it has little commerce. *Camden*, on the Wateree, enjoys a portion of the interior trade, but is chiefly remarkable for the battles fought in its neighborhood during the Revolution. Population, 2,000. *Cheraw*, on the Pedee, has 1,500 inhabitants.

5. *Agriculture.* Cotton and rice occupy the chief attention of the planters. Some tobacco is raised, and indigo was once an important article of cultivation. Wheat, maize, and other grains thrive well, but are so much neglected, that supplies are sought in the neighboring States.

6. *Commerce.* The exports of cotton from this State form an important item in our national commerce, and amount to 200,000 or 250,000 bales yearly. The export of rice is also great. The commerce is carried on to a great extent by northern and foreign vessels, the shipping of South Carolina amounting to only 20,000 tons. The annual imports are about 2,000,000 dollars ; the exports 10,000,000.

7. *Government.* The legislature is called the General Assembly, and consists of a Senate and House of Representatives. The senators are chosen for 4 years, according to the population and wealth of the districts. The representatives are chosen for 2 years, according to population. The Governor is chosen by the legislature for 2 years. The Lieutenant-Governor has no power or duty except on the death or removal of the Governor. The qualifications for voting amount nearly to universal suffrage. The clergy are ineligible to any civil office. This State sends 9 representatives to Congress.

8. *Religion.* The Methodists, Baptists, and Presbyterians, are the most numerous sects; the first number 37,500, and the second 36,300 communicants. The Presbyterians have 90 churches, the Episcopalians 50, the Lutherans 34, and the Roman Catholics 5, and there are some Unitarians, Friends, Universalists, and Jews.

9. *Education.* The *College of South Carolina*, at Columbia, was established in 1801. It has 9 instructers, and 150 students. The library has 7,000 volumes. *Charleston College*, in that city, founded in 1785, Zion College, and Beaufort College, are rather high schools. There are annually appropriated for free schools, about 37,000 dollars. There is a Medical School in Charleston. The Lutherans have a Theological Seminary at Lexington, the Presbyterians at Columbia, the Baptists near Statesburg, and the Roman Catholics at Charleston.

10. *History.* The first settlement within this State was made at Port Royal, in 1670 The next year, Charleston was founded. North Carolina was originally a part of this colony, and the constitution of Locke was in operation here. In the early times, the State was dis

turbed by many disagreements among the settlers, who were of different sects in religion. Episcopacy was at one time established by law, and dissenters were excluded from the legislature; but this regulation was annulled by Queen Anne. The separation from North Carolina has been already mentioned. For some time previous to the Revolution, the government was administered by officers appointed by the crown. After this, the colonial forms were adhered to, till 1790, when the present constitution was established. This has since been twice amended.

CHAPTER XXII. GEORGIA.

PHYSICAL GEOGRAPHY.

1. ***Boundaries and Extent.*** This State is bounded N. by North Carolina and Tennessee, E. by South Carolina and the ocean; S. by Florida; W. by Alabama. It extends from 30° 30′ to 35° N. lat. and from 80° 50′ to 86° W. long., being 300 miles in length from north to south, and 250 broad, and containing 62,000 square miles.

2. *Face of the Country.* In the northwestern part of the State there are some mountainous ridges, belonging to the Blue Ridge and Kittatinny chains, but these are of no great extent. Like the Carolinas, Georgia consists of three zones or belts; the flat, maritime belt, 100 miles in breadth, much of which is daily flooded by the tides; the sand-hill belt, or pine barrens, extending inland to the lower falls of the rivers, and the hilly and mountainous tract. The latter is a broken, elevated region, rising from 1,200 to 2,000 feet above the level of the sea.

3. *Rivers.* Georgia occupies a great inclined plane, sloping down from the Appalachian System to the Atlantic Ocean, and the Gulf of Mexico, and discharging its waters into those basins, the Savannah, the Alatamaha, and the Ogeechee into the former, and the Appalachicola into the latter. The Savannah forms the northeastern boundary, and empties itself into the Atlantic Ocean, after a course of about 600 miles. It is navigable for large vessels to Savannah, 15 miles from the sea, and to Augusta, 250 miles, for steamboats of 150 tons. Beyond this there is boat navigation 150 miles. The Ogeechee has a course of about 200 miles; sloops ascend 40 miles, and large boats to Louisville. The Alatamaha is formed by the junction of the Oconee and Ocmulgee. The tide flows up 25 miles, and large vessels go up to Darien, 12 miles. The Oconee and Ocmulgee have been ascended to Milledgeville and Macon, in steamboats, but the navigation of these rivers is chiefly carried on in large, flat-bottomed boats, on account of the shoals and rapids. The Saint Mary's, which forms, in part, the boundary between Georgia and Florida, takes its rise in an extensive swamp, called Okefinokee Swamp, and pursues a winding course to the sea. The tide flows up the river 50 miles, and its mouth forms a commodious harbor. The Chattahoochee and Flint rivers, drain nearly all the western part of the State, and by their junction form the Appalachicola, which traverses Florida. The former rises in the Blue Ridge, and has a course of about 450 miles. Steamboats ascend to Columbus, 300 miles, and the produce of the upper counties is brought down stream in boats Flint River has a course of 300 miles, and is navigable for steamboats, to Bainbridge, 50 miles.

4. *Islands.* Like the preceding State, Georgia is bordered toward the sea with a range of small islands and marshy tracts, intersected by channels and rivulets, which are navigable for small vessels. These islands consist of a rich grey soil, called *hummock land.* In their natural state, they are covered with forests of live oak, pine, and hickory; but under cultivation they produce the best cotton in the world, called ***Sea-island*** cotton.

5. *Climate.* There is little difference between the climate of this State, and that of South Carolina. The northern part is mountainous and healthy. In the swampy districts of the State, fevers are common in the warm season. The islands are the most salubrious spots in this quarter.

6. *Soil.* The coast within the islands is a salt marsh, beyond which is a narrow belt of good land, similar to the islands. This is succeeded by the Pine Barrens, which are interspersed with swampy tracts. The borders of the rivers are low and marshy, and subject to inundations. These parts are applied to the cultivation of rice. The Pine Barrens extend from 50 to 100 miles from the sea, and are succeeded by a region of sand hills, 30 or 40 miles wide, diversified here and there with a verdant spot, and bounded on the north by the elevated

land, which, further onward, rises into mountains. Here the soil is various, but generally strong and productive. The greater part of the State is alluvial. Okefinokee Swamp lies in the southern part of this State, extending into Florida. It is a sort of marshy lake, about 180 miles in circumference, and during wet seasons has the appearance of an inland sea, with many islands. It abounds with alligators, snakes, and all sorts of reptiles.

7. *Curiosity.* In the northwestern extremity of the State, near the Tennessee River, is an eminence, called *Raccoon Mountain.* On one of the precipitous sides of this mountain, is a deep cavern, called *Nicojack Cave.* Its mouth is 50 feet high and 160 feet wide. It has been explored for several miles without coming to the end. The floor is covered with a stream of cool, limpid water through its whole extent, and the cavern is accessible only in a canoe. Three miles within, is a cataract, beyond which voyagers have not penetrated. The roof is a solid limestone rock, smooth and flat, and the cave is remarkably uniform in size throughout.

8. *Mineral Productions.* Copper and iron ore have been found, and gold is obtained in considerable quantities. There are sulphureous springs in Butts county, called the Indian Springs, much resorted to for their efficacy in rheumatic and cutaneous disorders. The Madison Springs, 25 miles northwest of Athens, are chalybeate waters.

POLITICAL GEOGRAPHY.

1. *Divisions and Population* Georgia is divided into 93 counties.*

Population at several periods.

	Whites.	Slaves.	Free Colored.	Total Colored.	Total Pop.
1790 . .	52,886	29,264	398	29,662	82,548
1800 . .	101,678	59,404	1,019	60,423	162,101
1810 . .	145,414	105,218	1,801	107,019	252,433
1820 . .	189,566	149,656	1,767	151,423	340,989
1830 . .	296,806	217,531	2,486	220,017	516,823
1838 . .	393,190			268,512	661,692

2. *Cities and Towns.* *Savannah*, the largest city in the State, is situated on the western bank of the river of that name, 17 miles from the sea, with a good ship navigation for that distance. The site of Savannah is elevated and pleasant. The streets are wide and regular, with spacious squares and many handsome edifices. It contains 10 churches, a theatre, an exchange, a city hall, a hospital, and a public library. It is an unhealthy place in summer, yet enjoys considerable commerce, and is the great mart for the cotton planters of the whole State. The whole value of the exports exceeds 15,000,000 dollars, annually. Population, 12,000.

Augusta, on the Savannah, 240 miles above Savannah, by the river, but only 127 in a straight line, enjoys most of the interior trade of this quarter. It is regularly laid out with spacious streets, and is handsomely built, containing several tasteful public buildings and elegant

* Appling
Baker
Baldwin
Bibb
Bryan
Bullock
Burke
Butts
Camden
Campbell
Carroll
Cass
Chatham
Chattooga
Cherokee
Clarke
Cobb
Columbia
Coweta
Crawford
Dade
Decatur
Dekalb
Dooly
Early
Effingham
Elbert
Emanuel
Fayette
Floyd
Forsyth
Franklin
Glynn
Greene
Gwinnett
Gylmer
Habersham
Hall
Hancock
Harris
Heard
Henry
Houston
Irwin
Jackson
Jasper
Jefferson
Jones
Laurens
Lee
Liberty
Lincoln
Lowndes
Lumpkin
Madison
Mackintosh
Macon
Marion
Meriwether
Monroe
Montgomery
Morgan
Murray
Muscogee
Newton
Oglethorpe
Paulding
Pike
Pulaski
Putnam
Rabun
Randolph
Richmond
Scriven
Stewart
Sumpter
Talbot
Taliaferro
Tatnall
Telfair
Thomas
Troup
Twiggs
Upson
Union
Walker
Walton
Ware
Warren
Washington
Wayne
Wilkes
Wilkinson

dwelling-houses. Its trade and importance have been much increased by the Charleston Railroad. Population, 8,000.

Brunswick is an embryo city on the coast, remarkable for its excellent harbor, a rare advantage in this section of the country. *Darien* is a neat little town in the same quarter, with some business.

Milledgeville is the seat of government. It stands on the Oconee, near the centre of the State. The river is navigable to this place for boats of 25 tons, and the town has considerable trade. Population, 2,500. The town is in a pleasant and productive region, and contains the capitol, penitentiary, arsenal, and several churches. *Dahlonega*, to the north, is the seat of one of the branches of the United States mint. *Macon*, on the Ocmulgee, has an extensive trade, being the depot of a populous and fertile country. Population, 3,500. *Forsyth*, in the vicinity, is also a thriving town. *Columbus*, on the Chattahoochee, has sprung up within a few years, in the midst of the wilderness. The site is beautiful, and the streets are spacious and regular. Population, 4,000.

3. *Agriculture.* The great agricultural staples of Georgia, at present, are cotton and rice; some tobacco is raised in the central and northern parts, and a few hundred hogsheads of sugar are made in the southern section, where the cane is found to thrive in suitable soils. The founders of the colony designed to make it a great wine and silk country, and in 1760, 10,000 pounds of raw silk were exported; but rice and indigo early attracted the attention of the settlers, and became the most important crops, until the introduction of the cotton-plant turned nearly the whole industry of the planters to cotton. The cotton crop at present exceeds 300,000 bales, of the value of 14,000,000 dollars, and is increasing in amount; the cotton is of two sorts, the upland or green-seed, and the sea-island, black-seed or long-staple. The latter is raised only in the islands on the coast and the neighboring mainland, and being highly prized for the fineness of its fibre, brings twice as much as the inferior kinds in the market. In the latter part of August or beginning of September, the pods open or blow, and the wool is gathered; after having been dried in the open air, it is separated from the seeds, by passing it between two cylindrical rollers, which do not admit the passage of seeds; it is then *moted*, or freed from specks, winnowed, and is ready for packing.

Cotton Plantation.

4. *Commerce.* The exports of Georgia, in addition to cotton and rice, are tar, pitch, turpentine, and some lumber, the products of the vast pine forests, but the quantity of these is inconsiderable, compared with the amount which they might be made to yield. Almost every article of necessity and luxury is imported, so exclusively has the industry of the planters been devoted to cotton; cattle, horses, hogs, and cotton bagging are brought in from the Western States; clothing, furniture, carriages, harnesses, agricultural implements and machines, and almost every other manufactured article, foreign and domestic, wines, groceries, &c., come from the Northern States. The annual value of the direct imports from foreign countries, exceeds 800,000 dollars; that of exports to foreign countries is about 8,000,000 dollars.

5. *Canals and Railroads.* A canal from Savannah to the Ogeechee, 4 miles above the mouth of the Canoochee, 13 miles in length, and a similar work from Brunswick to the Alatamaha, of the same length, are the only artificial channels of navigation in this State; but something has been done towards removing obstructions to navigation in the Alatamaha, Oconee, Ocmulgee, and Flint. Several important railroads are in progress. The *Central Railroad* from Savannah to Macon, a distance of about 190 miles, is in a state of forwardness; the *Monroe Railroad*, from Macon to Forsyth, 25 miles, is a continuation of that work, which is to be further extended to Decatur, 60 miles; the *Georgia Railroad*, extends from Augusta to Decatur, 160 miles; the Main Trunk of the *Western and Atlantic Railroad*, extending from Decatur, across the Chattahoochee, to the Tennessee, near Rossville, about 120 miles, is designed to

form a common junction of the *Central* and *Georgia* Railroads with the Tennessee Valley. The *Brunswick and Florida Railroad*, from Brunswick to the head of Appalachicola River, is in progress. The *Franklin Railroad*, from West Point to Franklin, is 30 miles long.

6. *Government.* The legislature is called the General Assembly, and consists of a Senate and House of Representatives. The members of both Houses are chosen annually. Each county has one senator. Representatives are chosen according to population, including three fifths of the slaves. The Governor is chosen by the people for 2 years. All residents who pay taxes are voters. Georgia sends 9 representatives to Congress.

7. *Religion.* The Baptists and Methodists are the most numerous. The former number above 40,000, and the latter about 30,000 communicants, including slaves. The Presbyterians have about 5,000 communicants, and there are many Christians and Protestant Methodists. The Episcopalians, Roman Catholics, Lutherans, Friends, Unitarians, and Jews, are less numerous ; the number of the latter is stated to be about 400.

8. *Education.* The *University of Georgia*, at Athens, was first established in 1785, but has not been in operation for the whole of that period. It has 10 instructers, and 160 students. Its libraries have 4,250 volumes. There are about 90 academies in the State, and there is a fund for their support, of 500,000 dollars.

9. *History.* Georgia was the latest settled of all the Atlantic States. In 1732, a body of 113 emigrants, under James Oglethorpe, founded Savannah ; and 3 years afterwards many Scotch, Swiss, and Germans, formed settlements upon the coast. Wesley, the celebrated founder of the Methodist sect, visited Georgia in 1736, but quitted the colony when about to be brought to trial for what was esteemed misbehavior. George Whitefield also paid this colony a visit shortly after, and assisted in building up the sect of Methodists. The colony was involved in wars with the Spaniards of Florida, who invaded the coast, and established themselves for a short time upon the Alatamaha, but were driven off after a vigorous campaign. The charter was afterwards surrendered to the crown, and a royal government was established in 1754. The first constitution was formed in 1777 ; another in 1785 ; and the present one in 1798.

CHAPTER XXIII. TERRITORY OF FLORIDA.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* The territory of Florida is bounded north by Alabama and Georgia ; east by the Atlantic Ocean ; south by the Florida Stream, which separates it from Cuba, and west by the Gulf of Mexico, and the River Perdido, which separates it from Alabama. It lies between lat. 25° and 31° north, and long. 80° and 87° 44′ west, and has an area of 56,000 square miles. The southern portion forms a peninsula, 350 miles in length by 150 in breadth, which separates the Gulf of Mexico from the Atlantic Ocean.

2. *Rivers.* The *St. John's* rises in the centre of the peninsula, and flows northwest, nearly parallel to the Atlantic, presenting more the appearance of a sound than a river. Its sources are in an extensive marsh very little above the level of the ocean, and as its course is about 300 miles, its current must be sluggish. It is navigable about two thirds of its course for vessels of 6 feet draft. The *Appalachicola*, formed by the junction of the Flint and Chattahoochee, flows south into the Gulf of Mexico, after a course of 100 miles, through the whole of which it is navigable for sea vessels. All the rivers of this region have sand-bars at their mouths. The other principal rivers are the *Escambia*, *Suwanee*, *Oscilla*, *Withlacooche*, *Ockloconnee*, and *Tolopchopko.*

3. *Lakes.* The lakes are numerous, and some of them are of considerable dimensions ; they are in general remarkable for the transparency of their waters, and often present scenes of great beauty. Lakes *Orange*, *George*, and *Monroe*, which discharge their waters by the St. John, *Kissimmee* and *Okeechobee*, further south, lakes *Jackson*, *Yamong*, and *Mickasookie* in the west, are among the principal.

4. *Islands.* The shore is lined with small, low islands, separated from each other, and from the main land, by narrow and shallow inlets and channels. *Amelia Island* and *Anastatia*, on the Atlantic coast, are low, sandy strips, about 15 miles in length, by 1 in breadth. To the southwest is a chain of islets called *Keys*, (from the Spanish cayo, a rocky islet,) among which is *Key West*, or *Thompson's Island*, 20 leagues from the shore. It contains a military

post of the United States, and has considerable trade. The *Tortugas* are a cluster of Keys on the extreme west of this chain.

5. *Harbors and Shores.* The sea along both shores is for the most part shallow, but presents some good harbors and fine bays. On the Atlantic coast there are harbors at the mouths of St. Mary's and St. John's rivers, and at St. Augustine. On the western side are *Charlotte*, *Tampa*, *Appalachicola*, *Appalachee*, *Choctawhatchee*, *St. Andrew's*, and *Pensacola Bays.* Surveys have been made for the purpose of ascertaining the practicability of constructing a canal across the peninsula, which show the level of the waters of the gulf to be above that of the ocean.

6. *Climate.* There is little diversity of climate in Florida, although the northern belt, bordering on Alabama and Georgia, is less decidedly tropical in its character than the peninsular portion. Water never freezes, and even in the winter months, or rainy season, the heat of the sun is oppressive. Except in the vicinity of marshy tracts, the air is in general pure and healthy, though in some parts humid.

7. *Soil.* The soil may be described in general as poor, but there are many favorable exceptions. There is much swampy and marshy land, but the pine barrens constitute a great part of the country. The hummock land, so called because it rises in small mounds among the pines, has a good soil.

8. *Vegetable Productions.* The warmth and humidity of the climate compensate for the poverty of the soil, and give to Florida a vegetation of great variety and luxuriance ; its forest trees rise to a great height, and its flowering shrubs are remarkable for their brilliancy. The northern and central parts are covered with a dense forest, in which pine prevails ; but the palms, cedar, chestnut, and live oak, attain an extraordinary size. The magnolia, so much admired for its beauty, the cypress, the pawpaw, with its green foliage and rich-looking fruit, the shady dogwood, the titi, with its beautiful blossoms, &c., are found here. The low savannas are covered with wild grass and flowers of prodigious growth, and the cane in the swamps is of great height and thickness.

9. *Springs.* These form a remarkable peculiarity in the natural phenomena of the country. They exist in great numbers all over the territory, and burst out from the earth in large columns of water, remarkably transparent ; this bubbles up from so great a depth, as to lead to a general belief, that there is a prodigious cavern beneath the surface of the whole country, with openings in the rock above it, through which these fountains are discharged. The most remarkable of these springs is the *Wakulla Fountain* in West Florida, 12 miles from Tallahassee. It rushes up from its depths like a cauldron of boiling water, and forms a circular lake, the source of the Wakulla River. The water of this vast fountain has a bluish tinge, and is almost as transparent as air ; it has been sounded with a line of 250 fathoms before the bottom was found. It is of an icy coldness, even in the hottest of summer. A person floating in a skiff on the surface of this pellucid spring, which reflects the hues of the sky with indescribable softness, appears to himself suspended between two heavens. On Musquito River, is a warm mineral spring, which forms a large basin in which boats may float. The water is slightly sulphureous, but clear, and abounding in fish.

10. *Face of the Country.* The country in general is flat, but in some districts is undulating and in some places hilly. The elevation of the ridges or table-land, between the rivers, does not exceed from 200 to 250 feet.

POLITICAL GEOGRAPHY

1. *Divisions.* By the Spaniards, Florida was divided into East and West Florida, separated by the river Appalachicola. These names are retained in common use, though the political division has ceased to exist. The territory is now divided into 21 counties,* with a population of 50,000.

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* Escambia
Jackson
Walton
Washington
Franklin
Calhoun
Gadsden
Hamilton
Jefferson
Leon
Fayette
Columbia
Madison
Alachua
Duvall
Hillsboro'
Mosquito
Nassau
St. John's
Monroe
Dade

2. *Towns.* *St. Augustine* stands on the Atlantic coast; the town is regularly built, but the streets are very narrow. The houses are built of coquina, a soft stone, formed by a concretion of shells. They are generally two stories high, with thick plastered walls, and have balconies and piazzas. Connected with most of them are beautiful gardens. The town is surrounded by a ditch, and fortified by bastions, and the castle of St. Mark. The soil, in the neighborhood of St. Augustine, is sandy, yet the country is beautiful, producing orange, lemon, and date trees. The bar, at the entrance of the harbor, has but 9 feet of water at low tide, but the channel within has from 18 to 20 feet. Population, 2,000. St. Augustine was founded in 1564, and is therefore the oldest town in the United States.

Pensacola is the chief town in West Florida. It stands at the bottom of a large bay and occupies a gentle acclivity. The soil here is sandy, but the situation is salubrious, and the place is rather thriving. The bay affords a very safe and capacious harbor, and the government of the United States have made it a naval station. Small vessels only can come up to the town. Population about 3,000.

Tallahassee is the seat of government, and has been incorporated as a city. The situation is salubrious, and the country around, fertile. The place, however, is yet in its infancy. Population, 1,500. *St. Mark's*, on the Gulf, with which it is connected by a railroad, is a small seaport in the neighborhood. The village of *Quincy*, in the same quarter, further inland, is a flourishing place. *Appalachicola*, at the mouth of the river of the same name, and *St. Joseph*, are favorably situated for trade. *Key West*, on an island of the same, also called Thompson's Island, derives its importance from its being the rendezvous of the Florida wreckers, and it is a naval station of the United States. Population, 1,200.

3. *Agriculture.* The greater portion of the country is yet in a state of nature. The articles of culture are maize, sweet potatoes, rice, sugar-cane, tobacco, cotton, and indigo. The land in many parts is well fitted for the cultivation of the sugar-cane. The olive flourishes and bears well. Coffee has partially succeeded. Of fruits, the orange, fig, peach, pomegranate, and lemon flourish.

4. *Indians.* The Seminoles, and some other small tribes, are scattered about in the forests and savannas, to the number of about 2,000. They were formerly very numerous, but their numbers have lately been reduced by emigration. They subsist by hunting, and the sale of skins, cattle, venison, beeswax, honey, &c.

5. *Government.* Florida is governed by a Legislative Council, chosen by the people, and a Governor appointed by the authority of the United States. The Council meets annually at Tallahassee. The Territory sends one delegate to Congress, who, as in the case of the delegates from all the other Territories, is allowed to sit and debate in the House of Representatives, but has not the privilege of voting.

6. *History.* Florida has but recently come into the possession of the United States. It was visited and named by the Spaniards in 1513. In 1526 Pamphilo de Narvaez, with 400 men from Cuba, penetrated into the country, and were never heard of more. The savages offered a bloody and obstinate resistance to the Spanish settlers, but were partially subdued by Ferdinand de Soto, in 1539. The French began settlements on the coast in 1564, but after severe wars with the Spaniards, they abandoned the country. In 1763, Florida was ceded by Spain to Great Britain, in exchange for Havana. Under the British, the colony began rapidly to flourish, but the Spaniards reconquered it in 1781, and it was confirmed to them at the peace of 1783. In 1821, it was ceded by Spain to the United States, as a compensation for the spoliations committed by that power upon our commerce. Since this period, its prosperity has rapidly advanced. The most remarkable event in the recent history of this country is the Seminole war. The savages began to display hostilities to the American settlers shortly after the peace of 1815. In this they were encouraged by two English adventurers by the names of Arbuthnot and Ambrister. The war broke out in 1818, and many attacks were made upon the American towns and forts. A strong force was raised under General Jackson, who marched against the Seminoles, pursued them out of Alabama into Florida, where he took possession of the Spanish posts of St. Mark's and Pensacola. The Spanish Governor and garrison, who had aided the Indians in the war, fled to the fort of Barrancas, in the neighborhood, where they were besieged and forced to surrender. The Indians were everywhere put to flight, and the war was soon brought to an end. Arbuthnot and Ambrister were tried by a court-martial and executed. The Seminoles never recovered from the effects of this war.

Osceola.

More recently these people agreed to remove to the country west of the Mississippi, which has been set apart for the permanent residence of the aboriginal tribes ; but when the period agreed upon for their departure arrived they refused to start, and took up arms. They were joined by some fugitive Cherokees, and a destructive and bloody war followed, which continued to rage during the years 1835, 1836, 1837, and1838 ; it was finally terminated in the spring of 1839, by the government permitting those that yet remained to occupy the southern part of the peninsula, a large number of the natives having been removed during the war. The Indians were often defeated, but they fled for refuge to their impenetrable swamps, while great numbers of the inhabi tants of the Territory were murdered, and many of our troops fell victims to the climate or the sword. In this struggle, Osceola, of whom a cut is given opposite, distinguished himself by his courage and activity ; but having been made prisoner by the Americans he died at Charleston in 1838. The treaty of 1839 does not seem to have secured peace to this region, being little regarded by the Red men, who, trusting to their secret fastnesses, have lately committed new acts of violence

CHAPTER XXIV. ALABAMA.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* This State is bounded on the north by Tennessee ; east by Georgia ; south by Florida, and the Gulf of Mexico ; and west by the State of Mississippi. It lies between 30° 12′ and 35° north lat. ; and 85° and 88° 30′ west long. It is 325 miles in length, and 160 in breadth, and contains about 52,000 square miles.

2. *Mountains.* The northern part of this State contains the western extremity of the Appalachian mountains. They are a little more than a range of broken, precipitous hills, which rise on the western limit of the State, and pursuing an easterly course, divide into branches, and pass into Tennessee and Georgia, in a northeasterly direction.

3. *Rivers.* The Gulf of Mexico is the basin into which all the waters of this State, except a small portion in the north, are drained. The principal river is the *Mobile*, whose branches converge from the northern, northeastern, and northwestern parts of the State. The *Coosa* and *Talapoosa*, coming from Georgia, unite and take the name of the *Alabama*, which receives the *Cahawba* from the northern hills. The united waters of the *Tombeckbee* and *Tus-*

caloosa, or ***Black Warrior***, from the northwest, then form a junction with the Alabama, and under the name of the ***Mobile***, this combined mass of waters terminates its course in the bay of the same name, through 2 principal mouths, the ***Tensaw*** and the Mobile. Sea vessels go up to St. Stephens, on the Tombeckbee, and to Claiborne, on the Alabama, and steamboats ascend to a considerable distance above. The ***Chattahoochee***, on the eastern border, and the ***Tennessee***, on the north, receive no considerable tributaries from Alabama. The ***Conecuh***, or ***Escambia***, in the south, runs through Florida, into Pensacola Bay.

4. *Bay.* This State has but about 60 miles of seacoast. This contains the spacious *Bay of Mobile*, which extends 30 miles inland. It has 2 principal entrances, one of which has 18 feet depth of water. To the west, it communicates by a shallow passage with the *Bay of Pascagoula*, which lies within a number of islands, on the coast of this State and Mississippi.

5. *Climate.* In the northern parts, the still waters are often frozen over in winter. In the south, snow or ice is seldom seen. The climate, on the whole, is more favorable to health than the neighboring regions under the same parallels. There is hardly such a season as winter; and the summer heat is exceedingly oppressive. Cattle require no shelter during winter. Where the vegetation is most tardy, the trees are in full leaf by the 1st of April. Maize is planted early in March. By the 12th of April, peas are in pod, and the fig-trees are in leaf. Green peas are at table, May 2d. Mulberries, whortleberries, and others, as well as cucumbers, are ripe by the middle of May. Maize is ripe for roasting by the end of June. In the hot months, bilious diseases are common. At this season, none but the negroes, and those acclimated, can remain with safety upon the low banks of the rivers, or among the swampy lands. The inhabitants generally retire to the upper country, and among the pine forests, to pass the summer.

6. *Soil.* More than half the surface of the State is what is called a *pine barren*. These lands are very common in the Southern and Western States. They have a clayey soil, of a gray or reddish color, and produce a coarse grass, with trees of a moderate size thinly scattered over the surface. The quality of the land is never better than second or third rate, but is generally favorable to the growth of wheat. In the northern part, along the banks of the Tennessee, the soil is very good. The southern part has a thin soil, with much swampy land, covered with cypress and gum trees. The central part is rather hilly and waving, and the uplands here are covered with the long-leaved pine. The borders of the Alabama and Tombeckbee, are formed of wide alluvial tracts, which are extremely fertile.

7. *Vegetable Productions.* These do not differ essentially from those of Florida. In the southern parts, are groves of orange trees, affirmed by some to be indigenous; but these were, no doubt, planted by the early Spanish settlers.

8. *Geology. Minerals.* The southern portion of the State, south of a northwest line passing near Fort Mitchell, Wetumpka, Tuscaloosa, and Columbus in Mississippi, is a vast plain resembling that of the Atlantic States, of which it is a continuation. It is but little elevated above the level of the Gulf, and the inequalities of its surface are occasioned rather by depressions beneath the general level, than by any considerable rise above it. The rivers, and the action of some former floods, have furrowed the surface with deep ravines, in which the existing streams wind their devious courses. Geologically considered, this plain has features similar to the portions further north, consisting of beds of sand and clay, and calcareous strata referrible to the older tertiary and newer secondary or cretaceous periods, but chiefly to the latter. North of this great plain, the surface becomes hilly; and still further north, on both sides of the Tennessee, mountainous, being here traversed by numerous ridges of the Cumberland Mountains, to which the Raccoon and Lookout Mountains appear to belong. The elevation of these mountain ranges is nowhere considerable, but we have no accurate information on this point. This region consists chiefly of sandstones and limestones of the carboniferous group; and the rocky ledge which here marks the division between it and the plain, is sandstone, and not gneiss, as in the more northern States. Coal, salt, and iron, abound in this section, but we have little knowledge as to the extent and distribution of the iron and coal beds. The latter occur in Madison, Jackson, St. Clair, Tuscaloosa, Bibb, and other counties. Gold is found in the northeastern counties, and as far south as Autauga; probably nowhere, and certainly not in the latter locality, in veins, but in deposit mines or alluvial beds.

POLITICAL GEOGRAPHY.

1. *Divisions.* This State is divided into 49 counties.*

Population at different Periods.

1820,	Total,	144,317	Slaves,	47,439	Whites,	———
1830,	"	309,527	"	117,549	"	190,406
1838,	"	508,044	"	223,807	"	282,338

2. *Towns.* The only town of consequence is *Mobile.* It stands on the west side of the bay of that name, in a somewhat elevated position, above the overflow of the river. It was founded by the Spaniards about the year 1700, yet it was an inconsiderable place when it came into the possession of the Americans, in 1813. Since the country has been in our possession, it has flourished, although the yellow fever was at first a powerful obstacle to its rapid growth ; the health of the city has of late been much improved by drainage, and by paving the streets, which are spacious and often lined with the pride of China. Mobile is now the commercial depot of the whole State, and, next to New Orleans and Charleston, is the greatest market for cotton in the country, about 250,000 bales being annually shipped from its wharves. Many steamboats ply upon the bay and the river above, and there is an extensive foreign and coasting trade between Mobile, New Orleans, the North, and Europe. The Spanish part of the town consists mostly of ancient and decayed buildings ; but the modern part is handsomely built of brick The public buildings, however, are few. Population, 10,000. *Blakely*, on the opposite side of Mobile Bay, stands on the Tensas, a branch of Mobile River, and was intended as a rival of Mobile. Its situation is more salubrious than that town, being open and dry, with several streams of pure water, and the harbor is deeper and more easy of access ; but the town is an inconsiderable village.

St. Stephens, on the Tombeckbee, stands at the head of schooner navigation, about 120 miles above Mobile. It is situated in a fertile region, but is now almost deserted. *Cahawba*, at the confluence of the Cahawba and Alabama rivers, near the centre of the State, was formerly the seat of government.

Tuscaloosa, a little northwest of the centre of the State, on the Black Warrior River, is the capital. It was founded but a few years since, and contains the capitol, and the university of the State. It stands in a rich district, in a commanding and agreeable situation, and is accessible to steamboats. Population, 2,000. *Selma* is a thriving village above Cahawba, which derives importance from the railroad hence to the Tennessee. *Montgomery*, near the head of the Alabama, is a thriving town with a good deal of trade, and 2,500 inhabitants. *Wetumpka*, on the Coosa, was cut out of the forest in 1832, and now contains 3,000 inhabitants. The principal towns of North Alabama, or the Tennessee Valley, are *Florence*, below Muscle Shoals, and at the head of steam navigation, with 2,000 inhabitants, and *Huntsville*, above the shoals, with 2,500, both flourishing and busy towns.

3. *Railroads and Canals.* The *Tennessee* or *Muscle Shoals Canal*, extends along the right bank of the Tennessee, above Florence ; the least depth is 6 feet, and the least width at the surface, 60 feet ; these dimensions being adapted to admit the passage of steamboats, which can then go up to the Suck, near Rossville ; another section of this work, between Florence and Waterloo surmounts the only shoals below the former. The *Huntsville Canal* is a short work, extending from Huntsville, down the Indian Creek, to Triana, 16 miles. The *Tuscumbia and Decatur Railroad* extends from Decatur, on the Tennessee, through Courtland and Tuscumbia, to a point on the river a few miles from the latter village ; length, 48 miles. The *Montgomery and Chattahoochee Railroad* extends from Montgomery, on the former, to West Point,

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* Autauga
Baldwin
Barbour
Benton
Bibb
Blount
Butler
Chambers
Cherokee
Clarke
Conecuh
Coosa
Covington
Dale
Dallas
Dekalb
Fayette
Franklin
Greene
Henry
Jackson
Jefferson
Lauderdale
Lawrence
Limestone
Lowndes
Macon
Madison
Marengo
Marion
Marshall
Mobile
Montgomery
Monroe
Morgan
Perry
Pickens
Pike
Randolph
Russell
St. Clair
Shelby
Sumter
Talladega
Tallapoosa
Tuscaloosa
Walker
Washington
Wilcox

above Miller's Bend, on the latter river, a distance of 85 miles. The ***Florida and Montgomery Railroad***, from Pensacola up the valley of the Conecuh to Montgomery, is in progress; length, 170 miles. The ***Selma and Tennessee Railroad***, designed to connect the Alabama at Selma with the Tennessee near Gunter's Landing, a distance of 170 miles, is considerably advanced. The ***Wetumpka and Coosa Railroad***, another projected connexion of those two great rivers, is not yet commenced.

4. *Agriculture. Commerce.* Agriculture is almost the sole occupation of the inhabitants, and cotton absorbs nearly all their attention; the cotton crop of 1837, was about 330,000 bales, or 130,000,000 pounds, of the value of nearly 15,000,000 dollars. Some sugar, principally for domestic consumption, is made in the southern part, and some tobacco is raised in the northern. Indigo was formerly produced, but the cultivation has been abandoned. Indian corn is the principal grain crop, but corn, beef, and pork are imported from the Western States. There are several cotton-mills, iron-works, and tanneries in Northern Alabama, and some iron-works in Bibb and Shelby. These, with a few saw and grist mills, some salt works, distilleries, potteries, and marble quarries, constitute the only attempts at mechanical operations. The commercial transactions are chiefly managed by northern merchants and foreigners.

5. ***Government.*** The legislature is called the General Assembly, and consists of a Senate and House of Representatives. The senators are chosen for 3 years, and one third are renewed each year. The representatives are chosen annually; their number cannot exceed 100, nor that of the senators one third of the representatives. The governor is chosen for 2 years, and is eligible 4 years out of 6. The right of suffrage is given after one year's residence. The State sends 5 representatives to Congress.

6. ***Religion.*** The Baptists and Methodists are the prevailing sects; the Presbyterians, the Catholics, and the Episcopalians are also numerous.

7. ***Education.*** The ***University of Alabama***, at Tuscaloosa, was founded in 1820. It has 6 instructers, and 100 students. ***La Grange College***, in the county of Franklin, incorporated in 1830, and ***Spring Hill College***, near Mobile, are useful institutions. There are 24 incorporated academies in the State.

8. ***History.*** The southern portion was originally a part of Florida, and the northern was included in Georgia; the latter was ceded by that State to the United States government, and formed a part of the Mississippi Territory. It was made a territorial government, in 1817, and in 1819 it was admitted into the Union as an independent State. Its increase of population since that period has been very rapid.

CHAPTER XXV. MISSISSIPPI.

PHYSICAL GEOGRAPHY.

1. ***Boundaries and Extent.*** Mississippi is bounded north by Tennessee; east by Alabama, south by the waters of the Mexican Gulf and by Louisiana, and west by Pearl river, separating it from Louisiana, and by the Mississippi, which divides it from Arkansas and Louisiana. It lies between 30° 8′ and 35° north latitude and extends from 88° 12′ to 91° 40′ west longitude. It is about 335 miles in length from north to south, by 150 in breadth, with an area of 48,000 square miles.

2. *Face of the Country.* The surface in general slopes to the southwest, and to the south, as appears by the course of the rivers. There are no mountains within the limits of the State, but numerous ranges of hills of moderate elevation give to a great part of the surface an undulating and diversified character. Some of the eminences rise abruptly from the bank of a river, or from a level plain, and bear the name of bluffs. The western border on the Mississippi is an extensive region of swamps, inundated by the river; and between the Mississippi and the Yazoo, there is a tract of 170 miles in length, by 50 in breadth, with an area of nearly 7,000 square miles, annually overflowed by the former. The southeastern counties are low, but waving, and on the shore of this State, the coast of the Gulf of Mexico, which further west is marshy, first begins to appear solid, dry, and covered with pines.

3 ***Rivers.*** The *Mississippi* washes the western border of the State, and receives the ***Yazoo***, the ***Big Black River***, and the *Homochitto* from Mississippi. The Yazoo rises in the northern part of the State, and has a course of about 250 miles. The *Tombeckbee* flows from the

northeastern corner of the State into Alabama. The *Pascagoula*, which rises in the eastern part, and runs into the bay of the same name, after a course of 260 miles, is navigable for small vessels. The *Pearl* has its source in the centre of the State, and, taking a southerly course, empties itself into the Rigolets, between Lakes Pontchartrain and Borgne. Its navigation is impeded by rafts, shallows, and sandbars.

4. *Bays and Islands.* *Pascagoula Bay*, or rather Sound, is 55 miles in length, by 8 in width, with from 10 to 18 feet of water. It communicates with Mobile Bay by Heron Pass, with Lake Borgne by Christian Pass, and is separated from the Gulf of Mexico by a chain of low, narrow, sandy islands. *Biloxi* and *St. Louis Bays* are shallow basins. The Passes or straits admit the passage of vessels drawing 6 feet of water. *Lake Borgne* lies principally in Louisiana. *Ship Island*, *Cat Island*, and *Horn Island* are sterile banks of sand.

5. *Climate.* The winters are several degrees colder than in the Atlantic States of the same latitude, and rarely pass without snow. The summers are long and hot, and long droughts often succeed excessive and protracted rains. Along the rivers, and stagnant waters, it is unhealthy, but the settled districts are in general healthy, though, even in these, bilious complaints prevail in autumn.

6. *Soil.* The greater proportion of the soil is highly fertile ; the southwestern counties contain large tracts of excellent land, and the rivers throughout the State are skirted by belts of a productive soil. The bluff lands are the richest, and the river alluvions are next in point of fertility. Pine barrens constitute a considerable part of the country.

7. *Vegetable Productions.* The native trees most commonly occurring are the pine, various species of oak and hickory, black walnut, beech, persimon, and locust. Buckeye, which in the valley of the Ohio is a forest tree, is here a dwarf ; dogwood and papaw are also common, but the cane, which formerly abounded, has in a great measure disappeared.

POLITICAL GEOGRAPHY.

1. *Divisions.* Mississippi is divided into 56 counties.*

Population at different Periods.

1810	Whites,		Slaves,		Total,	31,000
1820	"	42,176	"	32,814	"	75,448
1830	"	70,443	"	65,659	"	136,621
1837	"	144,351	"	164,393	"	309,344

2. *Towns.* Natchez is the only large town in the State. It stands principally on a bluff, or high bank upon the Mississippi, 320 miles above New Orleans, and 300 feet above the common level of the stream. The streets are broad, and some of the public buildings are handsome. The business is chiefly confined to the lower town, and this is the chief place in the State for the shipment of cotton. Great numbers of steamboats and river craft are continually arriving and departing. In the rear of the town, the country is variegated and delightful, and the hills are clothed with woods and vineyards. The opposite bank of the river in Louisiana, is a vast cypress swamp. Natchez is incorporated as a city ; the insalubrity of the climate has somewhat checked its growth. Population, 8,000.

Jackson, on Pearl River, is the seat of government. The situation is central, healthy, and agreeable, and it contains the capitol and penitentiary. Population, 1,200. *Monticello*, on Pearl River, *Woodville*, on the Bayou Sara, *Port Gibson*, on the Bayou Pierre, and *Grand*

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* Adams
Amite
Attala
Bolivar
Carroll
Chickasaw
Choctaw
Claiborne
Clarke
Copiah
Covington
De Soto
Franklin
Greene
Hancock
Hinds
Holmes
Itawamba
Jackson
Jasper
Jefferson
Jones
Kemper
Koahoma
Lafayette
Lauderdale
Lawrence
Leake
Lowndes
Madison
Marion
Marshall
Monroe
Neshoba
Newton
Noxubee
Octibbeha
Perry
Pike
Ponola
Pontotoc
Rankin
Scott
Simpson
Smith
Tallahatchie
Tippah
Tishamingo
Tunica
Warren
Washington
Wayne
Wilkinson
Winston
Yalabusha
Yazoo.

Gulf and *Warrenton*, on the Mississippi, in the southern part, *Columbus* on the Tombigbee, and *Grenada* on the Yalabusha, further north, are considerable places, with from 1,000 to 1,500 inhabitants. *Vicksburg*, at the Walnut Hills, on the Mississippi, has grown up suddenly within 6 or 8 years, and exports much cotton to New Orleans. Steamboats regularly ply between the two places. It has a remarkably picturesque situation, being seated on the shelving side of several high hills, with the houses scattered about in groups upon the terraces. Population, 4,000.

3. *Agriculture.* Cotton is the staple of this State, and is raised in every part. Hardly anything else is thought worthy of attention. Sugar-cane has been introduced only in the southern part. Both the climate and soil are adapted to the cultivation of tobacco, maize, sweet potatoes, rice, and indigo. The *palma christi*, or castor-oil bean is sometimes raised. No planters in the United States derive greater incomes in proportion to their capital than those of Mississippi. The number of laborers on a plantation varies from 20 to 200. The cotton crop exceeds 350,000 bales.

4. *Railroads.* Several works of public benefit have been undertaken. The *Mississippi Railroad*, which will extend from Natchez, through Jackson, to Canton in Madison county, a distance of 150 miles, is in progress. The *Grand Gulf and Port Gibson Railroad*, 8 miles in length, connects the latter with the Mississippi at the former point. The *Jackson and Brandon Railroad*, 8 miles, unites those towns. The *Vicksburg Railroad* extends from Vicksburg to Clinton, 35 miles. The *Feliciana Railroad* extends from Woodville to the Mississippi, at St. Francisville, 30 miles. The *Lake Washington and Deer Creek Railroad* extends from Princeton on the Mississippi, to the Deer Creek, 20 miles, and its continuation to the Yazoo, 50 miles, is in contemplation. The great projected railroad from New Orleans to Nashville, will traverse the whole length of this State from north to south, through its central portion.

5. *Government.* The legislature is called the General Assembly, and consists of a Senate and House of Representatives. The senators are chosen for 4 years, one third being renewed every year. The representatives are chosen biennially. The right of suffrage requires one year's residence. Clergymen are excluded from civil offices. Mississippi sends two representatives to Congress.

6. *Religion.* The Methodists are the most numerous sect, and the Baptists the next so; there are also Presbyterians, Episcopalians, and some Catholics.

7. *Education. Jefferson College*, at Washington, near Natchez, was established in 1802. It has 6 instructers, and 60 students. *Oakland College*, at Oakland, founded in 1831, has 100 students, and *Mississippi College*, at Clinton, about 60. The State has a literary fund, and there are high schools at Natchez, Woodville, and Monticello.

8. *History.* The French formed a settlement in this State at Natchez, in 1716; but the right of the territory was long disputed between the French and the Spanish, and more recently between the French and English. Hardly anything further was done toward the settlement of the country for many years. In 1763, it was ceded to the English, with all the French possessions east of the Mississippi. In 1798, it was erected by the United States into a territorial government, Alabama being included within its limits; but this latter State was set off from Mississippi in 1817, and Mississippi was, the same year, received into the Union as a State. The constitution was formed in 1817, and revised and amended in 1832.

CHAPTER XXVI. LOUISIANA.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* This State is bounded north by Arkansas and Mississippi; east by Mississippi and the Gulf of Mexico; south by the Gulf, and west by Texas. It lies between 29° and 33° north latitude, and 89° and 94° west longitude. It is 240 miles in length from north to south, and 210 in width, and contains 48,500 square miles.

2. *Rivers.* The *Mississippi* flows through this State into the Gulf of Mexico. A full description of this river will be found in the general view of the United States. In this place it may be remarked, that it affords a navigation for ships of any size through the State, and passes to the sea by several outlets. *Red River* is one of the western tributaries of the Mis-

sissippi. It rises near Santa Fe, in New Mexico, and runs southeasterly in a very meandering course, through immense prairies, and further down through a fertile alluvial tract. It joins the Mississippi 240 miles above New Orleans, after a course of about 1,800 miles. It is a narrow stream, considering its length, but its mass of water is very great. In some places it is divided into 2 or 3 parallel channels, and passes through a series of bayous * and lakes. About 100 miles above Natchitoches, there is a swampy tract upon its banks, 20 or 30 miles in width. In this spot, the river formerly spread into a vast number of channels, and great masses of timber and fallen trees, brought down by the stream, that had been collecting for ages, formed an immense floor or *raft* upon the surface of the water, 160 miles in extent. In some places, the river could be crossed on horseback, and boats passed down the stream by the bayous and lakes along its border. Willow trees and shrubbery had overgrown the raft, and flourished over the water. Above this raft, the river is broad, deep, and navigable for steamboats, except in the driest seasons, for 700 miles. Below the raft, the river passes through a vast number of channels, bayous, and lakes. The raft was a great impediment to navigation, and has been removed at great expense and by persevering efforts for several years, at the charge of the general government, so that large steamboats now easily pass up this place into and beyond Arkansas.

The *Washita* rises in the Masserne mountains in Arkansas, and, flowing southerly, joins the Red River near its mouth. The *Bayou Lafourche* is one of the outlets of the Mississippi, forking off from the southwestern side of the river. The *Atchafalaya* is another on the same side, and leaves the main stream at a higher point, just below the entrance of Red River. This river receives large quantities of the drift wood brought down by the Mississippi, and its surface is covered with a raft, 8 or 10 miles in extent, which is estimated to contain more than 2,000,000 cords of timber. This rises and falls with the stream, and is overgrown with shrubs and flowering plants. A person might cross this raft, without knowing that a river was rolling under his feet. The *Sabine* rises in Texas, and, flowing south into the Gulf of Mexico, forms the greater part of the western limit of this State.

3. *Lakes.* In the eastern part are lakes *Maurepas* and *Pontchartrain*, which are united by a narrow strait, called Pass Manchac, and discharge their waters by the Rigolets and Chef Menteur pass into Lake *Borgne*, a wide bay opening into the Gulf of Mexico. The largest of these lakes is about 40 miles in length, and 30 in width. They are shallow, and in spots where no land is in sight, the bottom may be sounded with an angling rod. There is a deeper channel passing through their centre, which admits of a navigation for schooners. In high winds, these lakes are subject to a very dangerous ground-swell. To the west of the Mississippi, are a great number of small lakes. Some of them are many miles in extent, and others are mere ponds. Most of them communicate with the Mississippi, and receive the overflowings of the stream, which they send off to the sea in a multitude of channels. Many contain groves of cypress trees, growing in the water, among which boats pass, and fish may be taken in the driest seasons. The borders of these lakes are commonly fertile, and the trees are covered with a drapery of long moss. The *Chitimachas* or *Grand Lake*, *Washita*, *Mermentau*, *Colcasiu*, and *Sabine*, in the south, and *Catah Hoola*, *Bistineau*, and *Caddo* in the north, are the principal.

4. *Islands.* The *Chandeleur* Islands lie on the eastern coast. They are little more than heaps of sand covered with pine forests, yet some of them are cultivated. West of the Mississippi are many others scattered along the coast. Here is the Island of *Barataria*, formerly noted as a nest of pirates : it lies in a bay which receives the waters of a lake of the same name. The soil of these islands is generally rich. They are covered with thick groves of the live oak and other trees, and harbor multitudes of deer, turkeys, and other wild game. Most of them are low and level, but others rise from the flat surface around them, in abrupt eminences of 100 feet in height. There are some very fertile islands in the Mississippi.

5. *Shores, Inlets, &c.* The shores of the Gulf of Mexico are generally low, and bordered by wide marshes. The whole coast is intersected by a chain of bays and inlets, connected with each other by a thousand tortuous channels, generally shallow, and of difficult navigation.

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* The word *bayou* seems to be peculiar to this State and the immediate neighborhood. It is probably a corruption of the French *boyau*, and is generally applied to the channels or natural canals which connect the rivers and lakes, or pass off from the main stream of a river to the sea. More rarely, a small stream or creek is called by this name

Barataria, *Vermilion*, *Cote Blanche*, and *Atchafalaya Bays*, are the largest, but are of little service for shipping.

6. *Climate.* What we have said of Florida, and the southern parts of Mississippi and Alabama, will apply in substance to this State. In the level and swampy districts, the summers are unhealthy. The yellow fever is a frequent visiter of these parts, particularly in the neighborhood of New Orleans.

7. *Soil.* A great part of the surface of this State is periodically overflowed by the waters of the Mississippi. From a survey, made by order of the government of the United States, in 1828, it was found that the river inundated an extent of above 5,000,000 acres, a great proportion of which is rendered unfit for cultivation in its present state. This immense alluvial tract embraces soil of various descriptions, which may be arranged into four classes. The first, which is thought to be equal to two thirds of the whole, is covered with heavy timber, and an almost impenetrable undergrowth of cane and other shrubbery. This portion is quickly drained, as the river retires into its natural channels, and has a soil of the greatest fertility. The second class consists of cypress swamps. These are basins, or depressions of the surface, from which there is no natural outlet, and being filled with water by the floods, remain covered with it until the water is evaporated or absorbed by the earth. These, by draining, might become excellent rice fields. The third class embraces the sea marsh, a belt of land partially covered by common tides, but subject to inundation from the high waters of the gulf during the equinoxial gales ; it is generally without timber. The soil in some parts is clayey, and in others, as black as ink, and cracks by the heat of the sun into fissures wide enough to admit a man's arm. The fourth class consists of small bodies of prairie lands, dispersed in different parts of the alluvial territory. These spots are elevated, and without timber, but of great fertility.

The pine woods have generally a poor soil. The interval lands upon the rivers or *bottoms*, as they are universally termed in the Western States, are almost always rich. On the Red River, the soil contains a portion of salt, and is of a dark-red color, from the oxide of iron. A great proportion of the prairies are second-rate land, and some of them are sterile. The richest tract in the State, is a narrow belt called the *coast*, lying along the Mississippi on both sides, and extending from 150 miles above New Orleans, to 40 miles below. It is from 1 to 2 miles wide, and lies below the level of the river in ordinary inundations. It is defended from the river by a dike or *levee*, 6 or 8 feet in height, and sufficiently wide for a highway. The whole of this tract is under cultivation, and produces the richest crops of sugar.

8. *Face of the Country.* Three fourths of the State are an unvaried level. In the western part, are some ranges of low hills. The pine forests occupy an undulating surface, sometimes with table eminences and valleys, 30 or 40 feet deep. Swamps abound towards the sea. On the whole, Louisiana presents the appearance of an immense plain, divided into pine forests, prairies, alluvions, swamps, and hickory and oak lands. The prairies are the most remarkable feature of the country, and occupy a great portion of its surface. The prairie of the Attakapas, in the southern part, west of the Mississippi, contains 4,000 or 5,000 square miles. It is an immense plain of grass, pasturing cattle and horses, and supporting a large population. This plain is open to the gulf, and fanned by the refreshing breezes of the sea. Further west, is the Opelousas prairie, containing about 8,000 square miles. It is divided by bayous, wooded spots, and other natural boundaries, with a pine forest on the north, and the gulf on the south. It contains cotton and indigo plantations, vast flocks of sheep, and herds of cattle. Still further west, are the Sabine and Calcasiu prairies ; but these are only different names given to the long extent of prairie which reaches to the Mexican frontier. They are generally, to appearance, a fruitful level, yet have slight undulations, and an imperceptible slope towards the gulf. On the shore they terminate in marshes, covered with tall cane-grass. In many parts of them, are oases of timbered land, which exhibit clumps and towers of verdure, rising from the midst of an ocean of grass. Wherever a stream crosses the prairie, it is marked with a fringe of trees along its whole course

POLITICAL GEOGRAPHY.

1. *Divisions.* This State is divided into 2 districts, the Eastern and Western. These are subdivided into 33 parishes.[*]

2. *Canal.* The *Canal Carondelet* connects the Mississippi at New Orleans, with Lake Pontchartrain, through the bayou of St. John. It is 2 miles in length, and perfectly straight. It enters the city at an artificial basin, large enough to contain a great number of vessels. This canal affords a direct communication with the sea, for small vessels. There are similar works extending from the city to Lakes Borgne and Washita.

3. *Railroads.* A railroad from New Orleans to Lake Pontchartrain, was completed in April, 1831. It is 4¼ miles long, perfectly straight, and its variation of level is only 16 inches. An artificial harbor and breakwater are formed upon the lake, at the end of the railroad. The *Carrolton Railroad*, to Carrolton, above the city, is 6 miles long. The *New Orleans and Nashville Railroad*, designed to extend through Mississippi to Nashville, in Tennessee, is in progress toward the Mississippi State line, a distance of 88 miles. The *Atchafalaya Railroad* extends from Opelousas across the inundated lands to Point Coupée, 30 miles. The *St. Francisville and Woodville Railroad*, 28 miles, is chiefly in this State. The *Clinton and Port Hudson Railroad*, 28 miles, connects Clinton and Jackson with the Mississippi at Port Hudson. The *Alexandria and Cheneyville Railroad* extends from Alexandria to the Bayou Bœuf, 30 miles.

4. *Towns.* *New Orleans*, the seat of government of the State, and the commercial mart of all the western country, stands on the northern bank of the Mississippi, at a spot where the river makes a great bend to the northeast. It is 105 miles above the mouth of the stream, by its windings, and 60 in a direct line. The ground is level, and the neighborhood a swamp. It consists of 3 municipal divisions ; the city proper, the fauxbourgs or suburbs above, and those below it. The streets are straight and regular, generally crossing each other at right angles. In the city, the houses are built in the French and Spanish style, and are stuccoed of a white or yellow color. The fauxbourg of St. Marie and those adjoining it, are built in the American fashion, and resemble one of our Atlantic cities. Some of the public buildings are remarkable for size and architecture. The cathedral is an imposing structure of brick, with 4 towers It fronts upon a large square near the river. The other principal buildings are the State-house, City Hall, Custom-house, Exchange, the branch mint of the United States, several theatres, some of which are handsome edifices on a very large scale, the hotels, &c. The granite of the New England States has of late been much used here. Here are also a college, a convent of Ursuline nuns, an orphan asylum and many benevolent institutions. The spot on which the city is built, although the most eligible which the banks of the river afford in this quarter, has great disadvantages. The ground is soft and marshy, and there are no cellars to any of the buildings. As a place of trade, New Orleans has immense advantages. It is the outport for all the commerce of the Mississippi and its tributaries. It is accessible for ships of the largest size, and its levee is constantly crowded with all kinds of maritime and river craft. In the cotton season, its streets are barricadoed with bales. There are often 2,000 flat boats in the harbor at a time. Steamboats arrive and depart every hour, and 50 may be often seen together, while forests of masts of the sea vessels stretch along the levee. The yearly value of its exports to foreign countries exceeds 30,000,000 dollars ; of imports, 10,000,000, and its coastwise imports and exports probably exceed these amounts. The shipping belonging to the port is 80,000 tons, and that entered exceeds 350,000 tons yearly.

This city was in the possession of the Spanish and French before it came into the possession of the United States, and it now exhibits a striking mixture and contrast of manners, language, and complexion. Half the population is black or mulatto, and there are more French than Americans. It is the most dissolute city in the United States ; and swarms of profligate persons are collected here from every quarter. It is but just to add, that the stationary part of the population are not liable to these imputations. The police is judicious and energetic,

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[*] *Eastern District.*
Ascension
Assumption
Baton Rouge, (E.)
" " (W.)
Concordia
Feliciana, (E.)
" (W.)
Iberville
Jefferson
Lafourche Interior
Livingston
New Orleans
Plaquemines
Point Coupée
St. Bernard
St. Charles
St. Helena
St. James
St. John Baptist
St. Tammany
Terre Bonne
Washington

Western District.
Avoyelles
Carrol
Catahoula
Claiborne
Lafayette
Natchitoches
Rapides
St. Landry
St. Martin's
St. Mary's
Washita

and justice is promptly administered. The insalubrity of the city has always been well known. The endemics of the summer, sweep off strangers by hundreds, and the chance of surviving a season is sometimes considered as only 1 in 3. Notwithstanding this, it has rapidly increased in population, commerce, wealth, and general prosperity. Population, 80,000.

There is no other large town in Louisiana. *Donaldsonville*, on the west bank of the Mississippi, 90 miles above New Orleans, was at one time the seat of government. *Baton Rouge*, on the east side, 50 miles further up, stands on the last of the bluffs that are seen in descending the river. It is a pretty village, with houses in the French and Spanish style, and a handsome range of barracks for the United States troops. Population, 1,500. *St. Francisville*, on the same side, 20 miles above, stands also upon a bluff. It is about the size of Baton Rouge, and has a considerable trade in cotton. On the opposite shore, is *Pointe Coupée*, a village inhabited mostly by French. Here is the upper commencement of the great levee. *Port Hudson* is a thriving village below the Pointe.

Alexandria, on Red River, 100 miles from the Mississippi, by the windings of the stream, is a pleasant village in the centre of a rich cotton district, and ships large quantities of that article by steamboats and river craft. Population, 1,500. *Natchitoches*, 80 miles above, is the frontier town of the United States toward the Texian territories, and is usually termed the "jumping off place" by the traders, adventurers, and fugitives in that quarter. It was settled before New Orleans, and is more than a century old. The population is, like its history, an odd mixture of Indian, Spanish, French, and American. It has been under the rule of all these powers, and has had its war dances, fandangoes, French balls, and backwoodsmen's frolics. It is still a place of much gayety. The trade with Texas centres here; and it transmits to that country manufactured goods, spirits, and tobacco; and receives silver bullion, horses, and mules. Many fugitives from justice and lawless characters resort hither; yet the town has much respectable society, and newspapers in French and English are published in the place. Population, 3,000.

A few miles west of Natchitoches, are the remains of the ancient town of *Adayes*, founded by the Spaniards, and exhibiting the most complete specimen of an old Spanish town, that is to be found in the country. It consists of houses 100 years old, and a little old church, decorated with coarse paintings. The inhabitants are Spanish. It is about 25 miles from the Texian frontier. *Madisonville*, near the northern shore of Lake Pontchartrain, stands on a healthy spot, and is a summer residence for the people of New Orleans. *Opelousas* and *St. Martinsville*, west of the Mississippi, are thriving settlements, surrounded by a fertile and well cultivated district.

5. *Agriculture*. Sugar and cotton are the staples of the country. The sugar-cane is raised chiefly on that tract of the river alluvion called the *coast*, and upon the shores of the gulf and some of the bayous. It is planted in cuttings, or slips, and is cultivated nearly in the same way as maize. The rows are 6 feet apart. The soil should be of the richest quality, and a foot in depth. There are 4 varieties of cane; the African, Otaheitan, West Indian, and Riband cane. The last is a new variety, and its stalk is marked with parallel stripes. It ripens some weeks earlier than the other kinds, and will flourish further north. After the cane is cut, it lies a few days to ferment, and is then passed through iron rollers, which press out the juice; this is evaporated by boiling, and the sugar crystalizes. An acre well cultivated, will yield 1,200 pounds of sugar. This State produces annually 90,000 hogsheads, of 1,000 pounds each. The capital invested in sugar estates, exceeds 50,000,000 dollars.*

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* The following particulars respecting the cultivation of sugar, are extracted from a report of the Agricultural Society of Baton Rouge, September, 1829:

"The gross product of one hand, on a well-regulated sugar estate, is put down at the cultivation of 5 acres, producing 5,000 pounds of sugar, and 125 gallons of molasses; the former valued on the spot at 5½ cents per pound, and the latter, at 18 cents per gallon, together, $297·50. The annual expense of each hand, including wages paid, horses, mules, and oxen, physicians bills, &c., is $105. An estate with 80 negroes, annually costs $8,330. The items are as follows: salt, meat, and spirits, $830; clothing of all sorts, $1,200; medical attendance, and medicines, $400; Indian corn, $1,000; overseer's and sugar-maker's salary, $1,000; taxes, $300; annual loss on a capital of $50,000 in negroes, at 2½ per cent, $1,250; horses and oxen, $1,500; repairs of boilers, $550; do. of ploughs, carts, &c. $300. Total, $8,330. Fifteen acres are required for each hand, 5 for cultivation in cane, 5 in fallow or rest, and 5 in woodland. The annual consumption of wood, on an estate of 80 negroes, is 800 cords. Two crops of cane are generally made in succession on the same land, one of plant-cane, the other of ratoon; it then lies fallow 2 years, or is planted in corn or peas. One hand will tend 5 acres, besides cutting his proportion of wood, and ploughing 2½ acres of fallow ground.

"The capital vested in 1,200 acres of land, with its stock of slaves, horses, mules, and working oxen, is estimated at 147,200 dollars. One third, or 400 acres, being cultivated in cane, yields 400,000 pounds, at 5½ cents; and 10,000 gallons of molasses, at 18 cents; together, 23,800 dollars. Deduct annual expenses as before, 8,330 dollars, leaving an apparent profit of 15,470 dollars, or 10 3-7 per cent interest on the investment." In a report made the following year, however, it appears the Society were misled by the abundant and extraordinary crop of 1827, and they give it as their opinion, that the rate of income is not more than 6 per cent.

The cotton plant grows 6 feet high, with stalks as large as a man's arm. It bears large, yellowish blossoms ; and a cotton-field in flower, has a very brilliant appearance. The cotton is formed upon the cup of the flower, and is the down which envelopes the seed. The planting is performed in drill-rows, 6 feet apart ; the growth is thinned to a proper quantity, and is kept perfectly clear of weeds. The cotton is picked from time to time, as the pods open. It is passed through a gin, which detaches it from the seeds, and is then packed in bales. The cotton crop of Louisiana, is about 210,000 bales. Maize is cultivated to a considerable extent, and the sweet potato grows in the sandy soil to the utmost perfection. Rice yields abundantly, but the cultivation of indigo is nearly abandoned. Oranges of the finest quality are produced here, but the trees are often killed by the frost. Agriculture as a science is in its infancy, and the labor is performed by slaves.

6. *Commerce.* All the commerce of the State centres at New Orleans. It is chiefly transacted by vessels belonging to northern and foreign ports. The shipping of the State amounts to 92,000 tons, of which about 56,000 are in steamers. The annual value of imports, is about 12,000,000 dollars ; the exports of domestic produce, 26,000,000 dollars ; total exports, 30,000,000 dollars ; these consist of all the agricultural and manufactured products of the valley of the Mississippi, but the chief articles are sugar, cotton, tobacco, pork, and flour.

7. *Government.* The legislature is called the General Assembly, and consists of a Senate and House of Representatives. The senators are chosen for 4 years, and half the number are renewed every second year. The representatives are chosen for 2 years. The governor is chosen by a joint vote of the two Houses, and must be taken from the two highest previously balloted for by the people. His term of office is 4 years, and he is ineligible for the succeeding term. The clergy are excluded from office. The right of suffrage depends upon the payment of taxes. Louisiana sends 3 representatives to Congress.

8. *Religion.* The Catholics are the prevailing sect, and their ecclesiastical divisions, extending over the State, comprise above 20 parishes, most of which have priests. But the Baptists, Presbyterians, Methodists, and Episcopalians, are numerous.

9. *Education.* There are three colleges in the State ; *Louisiana College*, at Jackson , *Jefferson College*, in St. James ; and *Franklin College*, at Opelousas. There is also a medical college in New Orleans ; and 40,000 dollars are annually appropriated by the legislature for the education of the poor.

10. *Population.*

	Whites.	Slaves.	Free Colored.	Total Pop.
1810	34,311	34,660	7,585	76,556
1820	73,383	69,064	10,960	153,407
1830	89,441	109,588	16,710	215,739
1840				

11. *History.* The Mississippi was discovered in 1673, by two French missionaries, named Marquette and Joliette, who proceeded from Quebec by the way of the lakes to the Mississippi, and down the stream to the mouth of the Arkansas. A few years afterwards, the country was further explored by La Salle, and named Louisiana, from Louis the Fourteenth. A settlement was attempted by him in 1684, at the bay of St. Bernard, on the Gulf of Mexico, about 100 leagues west of the Balize or mouth of the Mississippi. The first permanent settlement was at the bay of Biloxi, in 1698, within the present limits of the State of Mississippi. The next year, a fort was built on the Mississippi, about 50 miles above its mouth. In 1722, New Orleans was founded by Bienville, the commandant of the colony. Two years afterward, 500 negro slaves were imported from Guinea. About this time, the patent of the colony passed into the hands of the Mississippi Company, in France, and was made instrumental in promoting the celebrated stock-jobbing bubble of John Law. At the treaty of peace, in 1763, Louisiana was ceded to Spain, and it was taken possession of by that power in 1769. In 1800, it was ceded to France. In 1803, it was purchased by the United States, from the French republic, for 15,000,000 dollars. The territory thus acquired, included all the possessions of the United States west of the Mississippi, of which the present State of Louisiana forms but a small portion. The remainder constitutes the States of Arkansas and Missouri, the Territory of Iowa, and the vast regions west of these divisions. In 1812, Louisiana, as defined by its present limits, was admitted into the Union as a State The constitution was formed the same year

CHAPTER XXVII. GENERAL VIEW OF THE WESTERN STATES AND TERRITORIES.

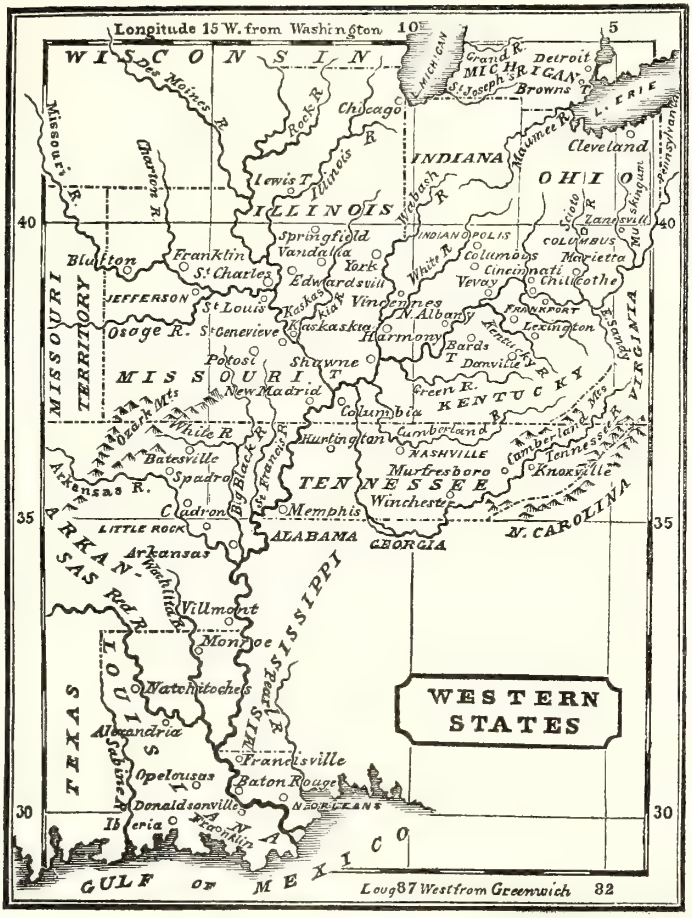
View of the Rocky Mountains.

1. *Boundaries and Extent.* This portion of the United States is bounded N. by Russian and British America ; E. by British America, Pennsylvania, Virginia, North Carolina, and Mississippi ; S. by Georgia, Alabama, Mississippi, Louisiana, Texas, and the Mexican Territories ; and W. by the Mexican Territories and the Pacific Ocean. It extends from 33° to 54° N lat. and from 80° 35′ to 130° W. long., and contains about 1,272,000 square miles.

States and Territories.

States.	*Capitals.*	*States.*	*Capitals.*
Tennessee,	Nashville.	Iowa T.,	Iowa City
Kentucky,	Frankfort.	Missouri,	Jefferson City.
Ohio,	Columbus.	Arkansas,	Little Rock.
Indiana,	Indianapolis.	Indian Territory,	
Illinois,	Springfield.	Western District,	
Michigan,	Detroit.	Oregon District.	
Wisconsin T.,	Madison.		

2. *Mountains.* The western ridges of the *Appalachian chain* limit a portion of this territory on the east. The *Ozark* and *Masserne Mountains* are branches of the Mexican chain which extends into the southeastern part of this country. But the most important are the *Rocky Mountains*, whose numerous ridges intersect this territory from north to south. In extent, height, and breadth, they far exceed the Appalachian Mountains. Their base is 300 miles in breadth. The central chain is covered with perpetual snow, and the peak of the *Great Wind Mountain* between the heads of the Arkansas and Platte rivers, has been calculated at 18,500 feet above the level of the sea. A great number of parallel ridges occupy the territory on both sides of the main range with a mean breadth of 200 miles. The mountains present generally a very rugged and sterile appearance, and oppose a very formidable barrier to any intercourse between the Western States and the Pacific Ocean. Two routes have generally been followed, the northern by the Missouri, and the southern by the Platte. The latter is so easy that wagons have been carried through. The former is impassable during the greater part of the year, but may be crossed from June to September, although with great difficulty. Lewis and Clarke's party, in their outward journey by this route, suffered every thing which cold, hunger, and fatigue could impose upon them for 3 weeks. They were compelled to melt the snow for drink ; their horses were lost among the precipices ; the men became feeble from toil and the want of food, and but for an occasional meal of horse-flesh, the whole party must have perished. At their return in the middle of May they were unable to pass for the snow, which



was 10 feet deep. Captain Pike and his company in attempting to explore the southern parts were completely bewildered among snows, torrents, and precipices, and many of the party were lost.*

Little is known of the geological structure of these mountains, but they seem to be chiefly granitic. Whether they contain any volcanoes is uncertain; when Lewis and Clarke's party were above the falls of the Missouri, they heard remarkable sounds among the mountains, which are described in the following language. "Since our arrival at the falls, we have repeatedly heard a strange noise coming from the mountains, a little to the north of west. It is heard at different periods of the day and night, sometimes when the air is perfectly still and unclouded, and consists of one stroke only, or of five or six discharges in quick succession. It is loud and resembles precisely the sound of a six pounder at the distance of 3 miles. The Indians had before mentioned this noise like thunder, but we had paid no attention to it. The watermen, also, of the party say, that the Pawnees and Ricaras give the same account of a similar noise made in the Black Mountains to the west of them." These noises, however, seem to be owing to other causes.

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* We are indebted to the Missouri Advocate for the following account of General Ashley's discoveries in this quarter. He considers it quite possible to form a route across this formidable barrier to the Pacific Ocean. The route proposed after leaving St. Louis, and passing generally on the north side of Missouri river, strikes the river Platte, a short distance above its junction with the Missouri; then passes the waters of the Platte to their sources, and in continuation, crosses the head waters of what General Ashley believes to be the Colorado of the West, and strikes for the first time, a ridge or single connecting chain of mountains running from north to south. This, however, presents no difficulty, as a wide gap is found, apparently prepared for the purpose of a passage; after passing this gap, the route proposed falls directly on a river, called by George Ashley the Buenaventura, and runs from that river to the Pacific Ocean. The face of the country in general is a continuance of high, rugged, and barren mountains, the summits of which are either timbered with pine, quaking ash, or cedar; or, in part almost entirely destitute of vegetation. Other parts are hilly and undulating; and the valleys and table lands (except on the borders of water-courses, which are more or less timbered with cotton-wood and willows) are destitute of wood; but this indispensable article is substituted by an herb called by the hunters wild sage, which grows from 1 to 5 feet high, and is found in great abundance in most parts of the country. The sterility of the country is almost incredible. That part of it bounded by the three ranges of mountains, and watered by the sources of the supposed Buenaventura, is less sterile; yet the proportion of arable land even within those limits is comparatively small, and no district of the country visited by General Ashley, or of which he obtained satisfactory information, offers inducements to civilized people sufficient to justify an expectation of permanent settlement. The river visited by General Ashley, and which he believes to be the Rio Colorado of the West, is at about 50 miles from its most northern source 80 yards wide. At this point General Ashley embarked, and descended the river which gradually increased in width to 180 yards. In passing through the mountains the channel is contracted to 50 or 60 yards, and so much obstructed by rocks as to make its descent extremely dangerous, and its ascent impracticable. After descending this river about 400 miles, General Ashley shaped his course northward, and fell upon what he supposed to be the sources of the Buenaventura, and represents those branches as bold streams, from 20 to 50 yards wide, forming a junction a few miles below where he crossed them, and then emptying into a lake called Grand Lake, represented by the Indians as being 60 or 70 miles long, and 40 or 50 wide. This information is strengthened by that of the white hunters, who have explored parts of the lake. The Indians represent that at the extreme west end of this lake a large river flows out and runs westward. General Ashley, when on those waters, at first thought it probable they were the sources of the Multnomah, but the account given by the

3. *Valleys.* This portion of the United States includes that great region known as the *Valley of the Mississippi.* This valley is drained by the Mississippi, Missouri, and their numerous tributary streams, and may be considered as bounded north by the great lakes of British America ; east by the Appalachian Mountains ; south by the Gulf of Mexico, and west by the Rocky Mountains. The name of valley has little propriety if applied to it in the common signification, and denoting a tract of territory depressed in the central parts and rising by successive elevations towards the heights which inclose it. The Mississippi valley is a wide extent of level country, in which the various rivers inclosed between 2 chains of mountains 3,000 miles apart find a common centre, and discharge their waters into the sea by a single channel. This valley extends from the 29th to the 49th parallel of north latitude, and exhibits every variation of temperature, from the climate of Canada to that of Louisiana.

4. *Rivers.* The *Mississippi*, which drains all the eastern and southern part of this country, rises in about 47° north latitude, in a number of head streams, and flows in a southerly course into the Gulf of Mexico, in latitude 29° 6′ north. Its length by its windings is above 3,000 miles. Its waters are augmented by the immense stream of the Missouri from the West, which is both longer and carries a greater bulk of water than the Mississippi, yet loses its name in the inferior stream. Further onward it receives the Ohio from the east, and nearer the sea, it is further augmented by the addition of the great streams, the Arkansas and Red Rivers. In many places it deposits immense heaps of drift wood upon the sand-bars, which become as dangerous to the navigator as shoals and rocks at sea. These obstructions are called snags, sawyers, and planters. They are so common, that the steamboats upon the river are generally constructed with a species of water-tight forecastle, called a snag-room, by which precaution the bows may be stove in without sinking the vessel.*

The *Missouri*, in regard to its length, may be considered the main stream of the Mississippi, and, in connexion with that stream, it is the longest river in the world. From its source in the Rocky Mountains to the Gulf of Mexico, its extreme length is 4,420 miles. It is navigable from the Great Falls to the sea, 4,000 miles. These great streams have been described under the head of United States.

Scene on the Missouri.

5. *Soil.* The most extensive districts of fertile land in the United States are contained in this section, and the productiveness of the soil fits it for becoming the granary of the whole continent. In the wild territories of the west, are great tracts of sterile country.

6. *Vegetable Productions.* The largest tree of the western forest is the sycamore, or the button-wood of the Eastern States. It grows in every part of the Mississippi valley, and rises in the most graceful forms, with spreading lateral branches, and a trunk of brilliant white. It grows to the greatest perfection on the river alluvions, and the trunk is sometimes more than 15 feet in diameter. The yellow poplar is next in size, and is a very stately tree. The

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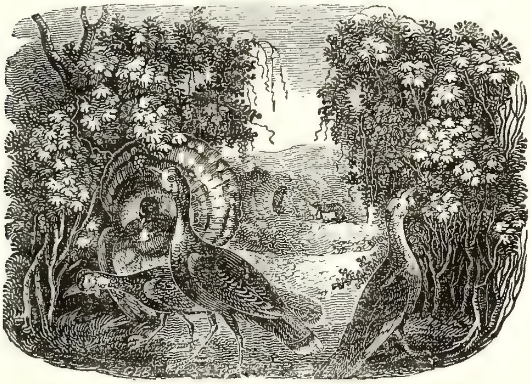
Indians, and supported by the opinion of some of the men belonging to the Hudson Bay Company, confirms him in the belief, that they are the head waters of the river Buenaventura. To the north and northwest from the Grand Lake, the country is represented as abounding in salt. The Indians west of the mountains are remarkably well disposed towards the citizens of the United States. The Eutaws and Flatheads are particularly so, and express a great wish that the Americans should visit them frequently. Most of the opinions and conjectures of General Ashley have been confirmed by later travelers, and this part of the country has, since his first visit, been pretty thoroughly scoured by the American hunters.

* The attention of the government has lately been directed towards the removing of these numerous obstructions, and there is reason to hope, that the western waters will in a few years be completely cleared of them. Several steamboats employed for this purpose, under the direction of a "Superintendent of Snags," have removed from the channel of the Mississippi and Ohio, numerous snags, besides effecting other improvements in the navigation. Boats now pass safely down the Mississippi at night, an attempt never ventured upon formerly.

bow-wood is a tree of extraordinary beauty, bearing a fruit like a large orange, most inviting in appearance, but nauseous to the taste. Its wood is heavy, durable, and elastic, and is used by the savages for bows; it yields a dye like that of fustic. It grows only in Arkansas and the immediate neighborhood. The China tree has fine, long-spiked leaves of the most brilliant verdure; and in the flowering season the top is one great tuft of blossoms, in color and fragrance like the lilac; the flowers are succeeded by reddish berries, upon which the robins feed, and are said to become stupefied by their narcotic qualities. This tree is much cultivated for ornament. The sugar-maple, dogwood, various kinds of oaks and walnuts, peccan, white locust, &c., are common here. The most remarkable of the shrubs in this region is the paw paw, which bears a fruit like a cucumber, of a rich, yellow color, and tasting like a mixture of eggs, cream, sugar, and spice, — a natural custard. The myrtle wax, or bayberry, is common both to these and the Eastern States. Prairie plums, red mulberries, and wild rice, are natives of this region. Numerous varieties of grapes are found in the woods, and afford a luxuriant repast to the flocks of wild turkeys, that roam undisturbed in the unsettled regions.


Wild Turkeys.

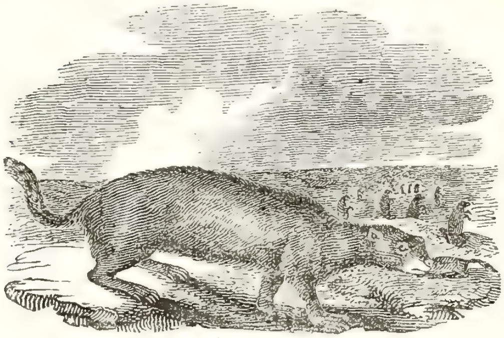
7. *Minerals.* Lead is the most abundant of the metals in this country. The iron produced here is obtained mostly from the neighborhood of the Appalachian mountains, but the ore abounds in Missouri and other States. Bituminous coal is also abundant in the same region. Limestone occurs in almost every part. Salt springs are found in innumerable places, and no part of the Mississippi valley is remote from a plentiful supply of salt.

8. *Face of the Country.* The immense prairies of the region constitute the most remarkable feature of the country. These are vast tracts, stretching as far as the eye can reach, totally destitute of trees, and covered with tall grass or flowering shrubs. Some have an undulating surface, and are called rolling prairies; these are the most extensive, and are the favorite resort of the bison. Here, without a tree, or a stream of water, the traveler may wander for days and discover nothing but a grassy ocean, bounded on all sides by the horizon. In the dry season the Indians set fire to the grass, and the wide conflagration which ensues, often surprises the bison, deer, and other wild animals, who are unable to escape from the flames, and are burned to death. The tracts denominated "barrens" have generally an undulating surface, with hills in long and uniform ridges. The soil is commonly clayey, of a reddish or gray color, and is covered with a tall, coarse grass. Trees are thinly scattered about the surface. The most extensive of these districts are in Kentucky, Tennessee, Alabama, Illinois, and Missouri.

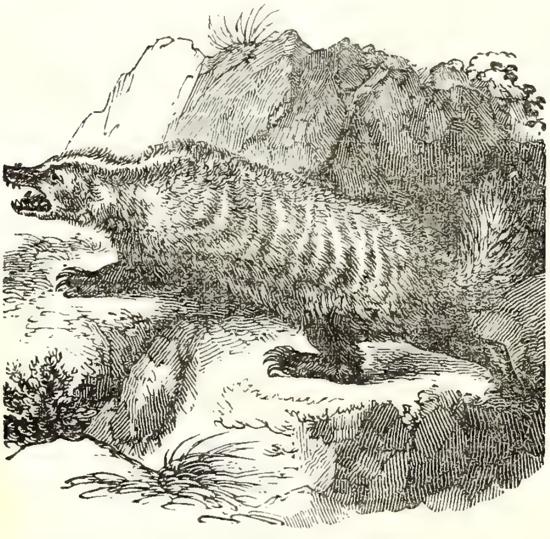
Much of this great country, especially the northern and western parts, remain to be explored. Of the region west of the Mississippi, hardly anything was known before the beginning of the present century, when the government of the United States despatched Captains Lewis and Clarke on an expedition of discovery. These officers, at the head of a large party well equipped, proceeded up the Missouri in boats to its source, crossed the Rocky Mountains to the Pacific Ocean, and returned by the same course. The southern part was explored by an expedition under Lieutenant Pike; and at a later period, Major Long, and other travelers, have visited different parts of the country.

9. *Animals.* Although the *Horse* is not a native of America, yet the wild horses of the Western Country deserve particular notice here. Herds of these animals, the offspring of those which have escaped from the Spanish possessions in Mexico, are not uncommon on the extensive prairies, that lie to the west of the Mississippi. They were once numerous on the Kootannie lands near the northern sources of the Columbia, on the eastern side of the Rocky Mountain Ridge, but of late years they have been almost exterminated in that quarter. They are not known to exist in a wild state to the northward of the 52d or 53d parallel of latitude. The Kootannies are acquainted with the Spanish-American mode of taking them with the *lasso*. Major Long mentions, that "horses are an object of particular hunt to the Osages. For the

Hunting Wild Horses.



Prairie Dog.



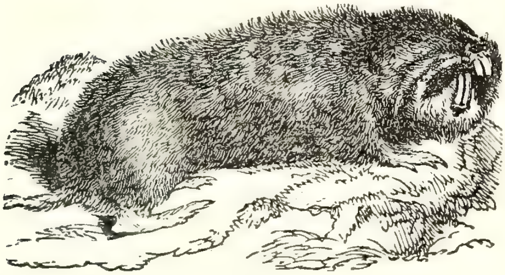
Badger.

purpose of obtaining these animals, which in the wild state preserve all their fleetness, they go in large parties to the country of the Red Canadian River, where they are to be found in considerable numbers. When they discover a troop of horses, they distribute themselves into three parties, two of which take their stations at different and proper distances on the route, which, by previous experience, they know the horses will most probably take when endeavoring to escape. This arrangement being completed, the first party commences the pursuit in the direction of their colleagues, at whose position they at length arrive. The second party then continues the chase with fresh horses, and pursues the fugitives to the third party, which generally succeeds in so far running them down, as to noose and capture a considerable number of them."

The domestic horse is an object of great value to the Nomadic tribes of Indians, that frequent the extensive plains of the Saskatchawan and Missouri; for it is not only useful in transporting their tents and families from place to place, but one of the highest objects of the ambition of a young Indian is, to possess a good horse for the chase of the buffalo, an exercise of which he is passionately fond. To steal the horse of an adverse tribe is considered to be nearly as heroic an exploit as killing an enemy on the field of battle; and the distance to which they occasionally travel, and the privations they undergo, on their horse-stealing excursions, are almost incredible. An Indian who owns a horse, scarcely ever ventures to sleep after nightfall, but sits at the tent door, with the halter in one hand, and his gun in the other, the horse's fore legs being tied together with thongs of leather. Notwithstanding all this care, however, it often happens, that the hunter, suffering himself to be overpowered with sleep only for a few minutes, awakes from the noise made by the thief galloping off with the animal.

The native animals of this vast region have been particularly described under the head of North America; it will only be necessary here to enumerate them. The bison, or American buffalo, is perhaps the most valuable of the wild animals of the west. The Rocky Mountain sheep and the Rocky Mountain goat, or bighorn, are confined to the remote recesses of the mountain. The wapiti, or American elk, and the Virginia deer, are found in the Western States, but the black-tailed or mule deer, the long-

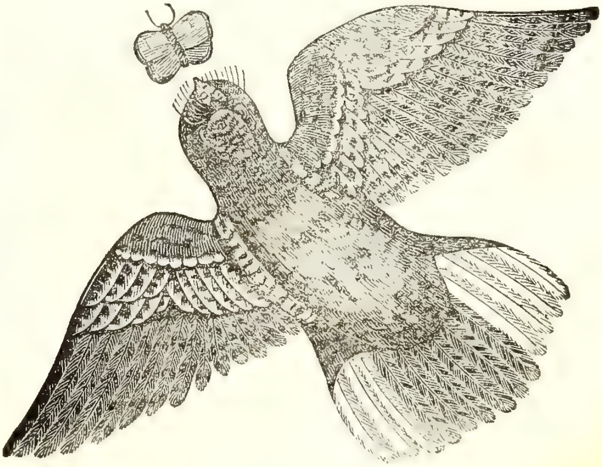
Raccoons.



Gopher.

tailed deer, and the prong-horned antelope, are only met with in remoter districts. The grizzly bear is the most formidable monster of the western wilds ; the black bear is also common ; the cougar, or panther, also occurs. The brown wolf, the prairie wolf, and the gray wolf are common, the two last in large packs. The beaver is still taken in great numbers in some retired tracts. Several species of marmots, especially the prairie dog, the badger, lynx, otter, several foxes and squirrels, the opossum, skunk, hare, &c., are also found. The raccoon is often hunted by the settlers at night, as in the Eastern States. The camas rat, or gopher, is found in the western districts. The badger is common in the northeastern portions. Among the birds, the Washington and bald eagle, several hawks and owls, and the various migratory birds already enumerated under the head of North America, abound in the deep forests, on the banks of rivers, and around the shores of lakes, whose solitude is scarcely interrupted except by their warbling or their screams. Of the gallinaceous birds are the turkey, the nobility of the barn-yard, the dusky grouse, the cock of the plains, the sharp-tailed grouse, and ruffed grouse. The passenger pigeon darkens the air, and shakes the forest by its numbers. The turkey buzzard and the carrion crow, the raven, the swan, and the crane, the magpie, the jay, the mocking-bird, the whip-poor-will, geese, ducks, &c., are to be added to the list. The fish of the rivers are numerous, and many of them are peculiar.

Raven.



Whip-poor-will.

10. *Inhabitants.* The inhabitants are the descendants or natives of almost every European country, and of every Atlantic State. The destitute and oppressed population of Europe may here receive their share of the earth, the original patrimony of man. There are separate communities of French, Swiss, and Germans ; and there are many English, Scotch, and Irish citizens. Ohio is chiefly peopled from New England ; and Kentucky and Tennessee from Virginia and North Carolina.

The negroes constitute a considerable part of the population. They are held as slaves in all the States but Ohio, Indiana, Michigan, and Illinois. But few Indians yet remain within the limits of the Western States. These are the Wyandotts, in Ohio, and the Chippewas and Ottawas. in Michigan. Within the Territories are the Menomonees and Chippewas in Wisconsin, the Winnebagoes, Iowas, Sauks and Foxes, and Sioux of Iowa. There are numerous others in the unsettled regions.

11. *Dress.* In a wide country, thinly settled, where a social life cannot be led as in towns, comfort and convenience are more studied than fashion, in dress. Generally the agricultural inhabitants of the West (which are a great proportion of the whole) are clothed in garments of their own manufacture, which are shaped without much reference to elegance or fashion. Some of the remote trappers and hunters dress partially in furs, and a hunting shirt, or frock, is not an uncommon garment, in some of the Western States.

12. *Language.* The English is by no means the universal language ; the French is common in the small French settlements of Illinois and Missouri. The peculiar circumstances of a people, always communicate some peculiarity to the language or forms of speech. It is remarked, that the people of the West speak rapidly, if not abruptly, and, that in some places they give utterance to "strange oaths." They have also coined several words, to suit a state of things not contemplated in any of the dictionaries, and their figures of speech are often drawn from their great inland navigation.* The English language, however, is in safe keeping in the West, where the unlawful words are infinitely less in number than in London. The peculiar words, are generally cant terms, as those who utter them well know, though some travelers, in the simplicity or malice of their hearts, describe them as being corruptions of the English, and parts of the common language.

13. *Manner of Building.* The manner of building is less substantial than in the Middle States, though many of the towns are of brick. There is generally a want of good architecture. There are few churches, or banks, and individuals are not yet rich enough to rear the costly piles that are common in the Atlantic towns. There are numberless neat and well-built villages, and in most of them may be seen the log-houses of those who first felled the forest. Remote from towns, the log-house is still the most common building. It requires little skill to build one, for there are neither pillars for ornament, nor posts for support. The house is made with unhewn trunks, laid one upon the other, and plastered between the crevices. The chimneys are on the outside, composed of clay, and supported by wicker work. The houses are seldom so spacious that the chamber, parlor, and kitchen are in different apartments, and the pigs and poultry have sometimes a free range. They are, however, cheap and comfortable. They are covered with bark, or long, split shingles.

14. *Food and Drinks.* The Western States have, with the exception of fish, the same kinds of food that are common in the Middle States, and several more. There is, indeed, no scarcity of fish in the rivers, but they are coarse and little esteemed. The two great articles of food, are bacon and Indian corn. The latter is prepared in various ways ; — generally it is, when ground coarse, boiled as hominy, or when the meal is finer, baked before a fire, into what is termed a johnny cake. These two dishes will never fail a traveler, either in the South or West, and one remarked, that "he had eaten so much bacon, that he was ashamed to look a pig in the face." There is game in abundance, and it is much used as food. The sweet potato is eaten, and in many parts, rice. The rice is boiled hard, and used with gravy, as potatoes are in New England. Coffee and tea are as much consumed, as in any part of the country. Maple and other sugars are common. The hotels are well furnished with substantial food, and at dinner, both whisky and milk are placed upon the table. There is much whisky consumed, — yet there are perhaps fewer cases of destructive intemperance than in New England. The spirit used is less deleterious than New England rum, or other spirits. Perhaps whisky is the least hurtful of any of the spirits, though even this is not to be taken but by those who are careless of health and morals. This spirit is too cheap for the public good ; as the grain is too bulky

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* "Accustomed to see the steamboat, with its prodigious and untiring power, breasting the heavy current of the Mississippi, the Kentuckian draws his ideas of power from this source ; and when the warmth of whisky in his stomach is added to his natural energy, he becomes in succession, horse, alligator, and steamboat. Much of his language is figurative, and drawn from the power of a steamboat. To get ardent and zealous, is to 'raise the steam.' To get angry, and give vent and scope to these feelings, is to 'let off the steam.' To encounter any disaster, or meet with a great catastrophe, is to 'burst the boiler.' The slave cheers his oxen and horses by bidding them 'go ahead.' Two black women were about to fight, and their beaux cheered them to the combat with, 'Go ahead and buss e boiler.' " — *Flint's Residence*

to be all carried to distant markets, too much of it is therefore converted into spirits. There is much peach brandy, and also a concentrated cider, called cider royal. In the older settlements there is cider, and in every considerable town are breweries for porter and beer. Several vineyards produce tolerable wine, but not enough for more than local consumption : — when, however, the rich soil and sunny climate of the West shall produce wines enough to supply the demand for them, it is probable that not only there, but in the whole country, the consumption of ardent spirits will be much diminished. From natural indications, the grape must thrive well in the West. There is no wild vine there which grows more luxuriantly than the grape, and it is common to see vines 6 inches and more in diameter, running up and covering the tops of the highest trees. In Arkansas, and several other places, the wild grapes are delicious.

15. *Diseases.* These are generally bilious fevers, for the pulmonary complaints are not, compared with the same in New England, as 1 to 50. Intermittent fevers are common and troublesome, though to have the ague is in some places so common, that the patient can hardly claim the privileges of sickness. In some few places, half the people are said to have agues. Many large districts, however, are entirely free from them, and they are everywhere becoming less. The great remedies used are bark and calomel. The diseases, however, are so regular, that most families have some book of domestic medicine, to which they trust in common cases. " Indian Doctors " are esteemed by the more ignorant people ; these practise generally in the herbs, used or represented to be used by the Indians. They are " Faith Doctors," also, who receive their title from the perfect confidence which they require in the patient, to some mysterious medicine.

16. *Traveling.* The people of the West, like those of the East, are distinguished for their propensity to travel. Their country is intersected with navigable streams, so that the farmer's best market is at New Orleans, distant thousands of miles, and there are very few people of substance who have not been there. An Englishman resident in the West remarks, that people here think less of a journey of 3,000 miles, than men do of 300 in England. Conceptions of space and distance are on no ordinary scale, though with respect to facility of communication, Pittsburg is as near to New Orleans as Edinburgh to London. The people are therefore well acquainted with various parts of their own section of country.

There are lines of stagecoaches, though less commodious than in the East ; but generally, the traveling on land is on horseback, as the roads are too rough for comfortable motion in carriages. The traveler has an oiled cover for his hat, a portmanteau, and umbrella, and thus appointed, even ladies travel thousands of miles. The rivers, however, are the great natural roads, and on these there is a choice of every water conveyance ever invented, and of many which have never received a name.* There are the rude, shapeless masses, that denote the

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* River Distances in the West. We copy, from the Wheeling Times, the following useful and convenient table, showing the distances from each other of the places named, and from Wheeling, with the prices of passage. It is proper to observe, that these are the established rates, but that some boats charge less, the prices depending in some degree upon the number of boats in port, and the abundance or scarcity of passengers:

Up the River.

	Miles.		Fare.
Wheeling to Wellsburg, Va.	16		$0.75
Steubenville, Ohio	7	23	1.00
Wellsville	20	43	1.50
Beaver, Penn.	26	69	2.50
Pittsburg	27	96	3.00

Down the River.

	Miles.		Fare.
Marietta, Ohio	82		2.50
Parkersburg, Va.	10	92	2.50
Point Pleasant	78	170	5.00
Galliapolis, Ohio	3	173	5.00
Guyandotte, Va.	37	210	6.00
Portsmouth, Ohio	50	260	7.00
Maysville, Ky.	47	307	8.00
Ripley, Ohio	12	319	9.00
Cincinnati	46	355	10.00
Port William, mouth of Kentucky	79	434	11.00
Madison, Indiana	13	447	11.00
Westport, Ky.	20	467	12.00
Louisville	20	487	12.00
Rome, Indiana	100	587	15.00
Troy	35	622	15.00
Yellow Banks, Ky.	25	647	15.00
Evansville, Indiana	40	687	18 00
Henderson, Ky.	12	699	18 00
Shawneetown, Ill.	53	752	18.00
Smithland, mouth of Cumberland	63	815	18.00
Mouth of Ohio	66	881	20.00
New Madrid, Mo.	75	956	22.00
Memphis, Tenn.	150	1,106	25.00
Helena, Ark. Ter.	85	1,191	26 00
Vicksburg, Miss.	307	1,498	30.00
Natchez	110	1,608	30.00
New Orleans, La.	300	1,908	35.00

The above prices of passage include boarding. The prices of deck passage are about one fourth of these, the passengers finding themselves. Thus, to Louisville, the deck passage is $3, cabin, $12 ; to New Orleans, deck, $8, cabin, $35. The deck is covered, and contains berths, but it is a very undesirable way of traveling. The passage to Louisville is generally performed in two days and a half, and to New Orleans in from eight to ten ; returning, nearly double this time. The ordinary speed of the boats is 12 miles an hour down the river, and 6 up.

infancy of navigation, and the light steamboat, which makes its perfection; together with all the intermediate forms between these extremes.* The most inartificial of all water-craft, is the ark, or Kentucky flat, a huge frame of square timbers, with a roof. It is in shape a parallelogram, and lies upon the waters like a log; it hardly feels the oar, and trusts for motion mainly to the current. It is 15 feet wide, from 50 to 80 feet long, and carries from 200 to 400 barrels. These arks are often filled with the goods and families of emigrants, and carry even the carriages and domestic animals. They are used also for shops of various kinds of goods, which are sold at the different towns, and some of them are fitted up as the workshops of artificers.

Distances on the Upper Mississippi.

From St Louis to Missouri River	18 miles.	
Alton, Ill.	6	24
Hamburg, do.	15	39
Clarksville, Mo	60	99
Louisiana, do.	12	111
Saverton, do.	23	154
Hannibal, do.	7	141
Marion city, do.	10	151
Quincy, Ill.	10	161
Lagrange, Mo.	12	173
Tully, do.	8	181
Warsaw, Ill., near Fort Edward . . .	20	201
Mouth of De Moines River, Mo. . . .	2	203
Keokuk, Iowa	1	204
Commerce, Ill., head of De Moines rapids .	18	222
Appanoose, do., opposite Fort Madison .	10	232
Burlington, Iowa	20	252
Yellow Banks, Ill.	15	267
New Boston, Ill., opposite mouth Iowa River	15	282
Iowa, near mouth of Pine River	35	317
Rockport, Ill., mouth of Rock River Montevideo, Iowa, opposite Rockport .	10	327
Senasepo, Iowa	4	331
Stevenson, Ill. Davenport, Iowa, opposite Stevenson .	5	336
Rock Island, Ill., foot of rapids	1	337
Canaan, do. head of R. I. rapids . . .	18	355
New Philadelphia, Iowa	40	395
Savanna, Ill.	20	415
Smithville, do.	10	425
Belleview, Iowa	6	431
Fever River, Ill.	6	437
Galena	8	445
Du Buque, Iowa	30	475
Cassville, Wisconsin Territory	30	505
Prairie La Porte	8	513
Prairie du Chien	22	535
Falls of St. Anthony, about	265	800

Price of passage the same as on the Ohio River, viz. about $3 per hundred miles, for long distances, and 4 to 5 cents per mile for short ones. Deck passengers, about $1 per hundred miles. The usual speed of the boats is 6 miles an hour up stream, and 10 down.

Towns on the Illinois River, with their Distances from Peoria. W stands for west side; E. for east side.

Up the River.

Detroit	w.	6 miles.		4 houses.
Rome	w.	12	18	25 “
Allentown	w.	1	19	3 “
Chillicothe	w.	2	21	30 “
Lacon	w.	12	33	55 county seat of Marshall.
Henry	w.	12	45	5 houses.
Webster	w.	8	53	5 “
Hennepin	e	4	57	pop. 700; co. seat Putnam.
Enterprise	w	12	69	4 houses.
Peru	w.	2	71	pop 900.
Rockwell	w.	3	74	16 houses.
Utica	w.	5	79	7 “
Ottawa, mo. Fox River		11	90	90 pop. 900; co. seat La Salle.
Chicago, by land		80	170	

Down the River.

Wesley city	e.	3 miles.		30 houses.
Pekin	e.	7	10	10 — pop. 400
Copperas creek	w.	20	30	
Liverpool	w.	10	40	6 houses.
Havana	e.	10	50	30 “
Chodes' landing	w.	18	68	3 “
Mouth of Sangamon	e.	10	78	
Erie	w.	7	85	5 houses.
Beardstown	e.	2	87	pop. 600.
Lagrange	w.	10	97	10 houses.
Meredosia	e.	10	107	30 “
Naples	e.	6	113	pop. 350.
Phillips' Ferry		4	117	
Portland	w.	3	120	3 houses.
Augusta	w.	3	123	15 “
Montezuma	w.	5	128	20 “
New Bedford	w.	2	130	6 “
Bridgeport	e.	10	140	10 “
Newport	w.			5 “
Columbiana	e.	10	150	6 “
Guilford	w.	12	162	10 “
Camden, mo. Illinois		18	180	5 “
Grafton, Ill.		2	182	40 “
Portage de Sioux, Mo.		7	189	50 “
Randolph, Ill.		1	190	7 “
Alton, Ill.		8	198	pop. 3,625.
Missouri River		4	202	
Chippeway, mo. Wood R.		2	204	5 houses.
St. Louis, Mo.		16	220	pop. 16,207.

The price of passage from St. Louis to Peoria is $5 for cabin, $2.50 for deck. From Peru or Ottawa, $3 for cabin, $1.50 for deck. Way passages are much higher in proportion.

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* “In the spring, 100 boats have been numbered, that landed in one day at the mouth of the bayou at Madrid. I have strolled to the point, on a spring evening, and seen them arriving in fleets. The boisterous gayety of the hands, the congratulations, the moving picture of life on board the boats, in the numerous animals, large and small, which they carry, their different loads, the evidence of the increasing agriculture of the country above, and more than all, the immense distances which they have already come, and those which they still have to go, afforded me copious sources of meditation. They have come from regions thousands of miles apart; they have floated to a common point of union. The surfaces of the boats cover some acres. Dunghill fowls are fluttering over the roofs, as an invariable appendage. The chanticleer raises his piercing note; the swine utter their cries; the cattle low; the horses trample, as in their stables. There are boats fitted on purpose, and loaded entirely with turkeys, that, having little else to do, gobble most furiously. The hands travel about from boat to boat, make inquiries and acquaintances, and form alliances to yield mutual assistance to each other, on their descent from this to New Orleans. After an hour or two is passed in this way, they spring on shore to raise the wind in town.

“About midnight, the uproar is all hushed. The fleet unites once more at Natchez or at New Orleans, and, although they live on the same river, they may, perhaps, never meet each other again on the earth. Next morning, at the first dawn, the bugles sound. Everything in and about the boats, that has life, is in motion. The boats, in half an hour, are all under way. In a little while, they have all disappeared, and nothing is seen, as before they came, Sometimes, also, they are used as museums of wax figures, and other shows. There are also keel-boats and barges, which are light and well-built ; skiffs, that will carry from 2 persons to 5 tons, " dug-outs," or pirogues, made of hollowed logs, and other vessels, for which language has no name, and the sea no parallel. There are a few small boats that are moved by a crank, turned by a single man. These are on the principle of steamboats. Since the use of steamboats, numbers of the other craft have disappeared, and the number of river boatmen has been diminished by many thousands.

The great thoroughfares are thronged with singular assemblages of travelers. Many are miserably poor, but others, more like the patriarchs, with herds and slaves. On land, they often sleep in their wagons, or tents, and cook for themselves ; and on the rivers they get provisions plentifully from the shore. The steamboats are good hotels, and the traveler is hard to please, who is not delighted in going in them, down the Mississippi or Ohio. The course is often too swift to enjoy perfectly the beauty of the banks, and the scene is so constantly shifting, that it is with a feeling of regret, that one is carried so swiftly by the opening rivers, forests, farms, and towns. The explosions in steamboats are the least of the dangers in traveling in them, at the West ; though they are the chief perils in the Eastern States. The navigation of the Mississippi has many obstructions and dangers, against which caution is of no avail. The channels and banks are constantly shifting, and the stream contains many huge trees, partly imbedded in the mud. A boat often strikes upon these, and is so shattered, that it fills instantly with water, which sometimes comes in so fast that all the passengers cannot escape. The boats, however, have a *snag-room*, or bulwark, 10 or 15 feet before the bows, which is a complete defence. The expenses in the steamboats are not great, and the upper deck is fitted to carry emigrants, or passengers, who find their own bedding and food. To such, the fare from New Orleans to St. Louis, is but 8 dollars. The roads are seldom good, and after rains they are exceedingly slippery, from the clayey nature of the soil. The inns are but such as may be supported in a new country, where more travelers desire shelter than luxury. In the large towns they are well conducted, but in small villages and remote places, if the most fastidious traveler finds a single bed, he is indebted for it to chance, and not to custom.*

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but the regular current of the river. In passing down the Mississippi, we often see a number of boats lashed, and floating together. I was once on board a fleet of 8, that were in this way moving together. It was a considerable walk, to travel over the roofs of this floating town. On board of one boat they were killing swine. In another, they had apples, cider, nuts, and dried fruit. One of the boats was a retail, or dram-shop. It seems, that the object in lashing so many boats, had been to barter, and obtain supplies. These confederacies often commence in a frolic, and end in a quarrel, in which case, the aggrieved party dissolves the partnership by unlashing, and managing his own boat in his own way. While this fleet of boats is floating separately, but each carried by the same current, nearly at the same rate, visits take place from boat to boat in skiffs. While I was at New Madrid, a large tinner's establishment floated there in a boat. In it all the different articles of tin-ware were manufactured and sold by wholesale and retail. There were large apartments, where the different branches of the art were carried on in this floating manufactory. When they have mended all the tin, and vended all that they could sell, in one place, they floated on to another. A still more extraordinary manufactory, we were told, was floating down the Ohio, and shortly expected at New Madrid. Aboard this was manufactured axes, scythes, and all other iron tools of this description, and in it horses were shod. In short, it was a complete blacksmith's shop, of a higher order, and it is said, that they jestingly talked of having a trip-hammer worked by a horse-power, on board. I have frequently seen a dry goods shop in a boat, with its articles very handsomely arranged on shelves. Nor would the delicate hands of the vender, have disgraced the spruce clerk behind our city counters. It is now common to see flat boats worked by a bucket wheel, and a horse power, after the fashion of steamboat movement. Indeed, every spring brings forth new contrivances of this sort, the result of the farmer's meditations over his winter's fire." — *Flint's Residence.*

* The following is Mr. Flint's description of one of the various perils that sometimes beset the traveler on the western waters. He was in a boat, accompanied only by his wife and small children.

" We arrived opposite to the second Chickasaw bluff on the 26th of November. The country on the shore receives and deserves the emphatic name of ' wilderness.' At 10 in the morning we perceived indications of a severe approaching storm. The air was oppressively sultry. Brassy clouds were visible upon all quarters of the sky. Distant thunder was heard. We were on a wide sand-bar, far from any house. Opposite to us was a vast cypress swamp. At this period, and in this place, Mrs. F. was taken in travail. My children, wrapped in blankets, laid themselves down on the sand-bar. I secured the boat in every possible way, against the danger of being driven by the storm into the river. At 11 o'clock the storm burst upon us in all its fury. Mrs. F. had been salivated during her fever and had not yet been able to leave her couch. I was alone with her in this dreadful situation. Hail, and wind, and thunder, and rain in torrents, poured in upon us. I was in terror, lest the wind would drive my boat, notwithstanding all her fastenings, into the river. No imagination can reach what I endured. The only alleviating circumstance was her perfect tranquillity. She knew that the hour of sorrow, and expected that of death, had come. She was so perfectly calm, spoke with such tranquil assurance about the future, and about the dear ones, that were at this moment ' biding the pelting of the pitiless storm,' on the sand-bar, that I became myself calm. A little after 12, the wind burst in the roof of my boat, and let in the glare of the lightning, and the torrents of rain upon my poor wife. I could really have expostulated with the elements in the language of the poor old Lear. I had wrapped my wife in blankets, ready to be carried to the shelter of the forest, in case of the driving of my boat into the river. About 4 o'clock the fury of the storm began to subside. At 5, the sun in his descending glory burst from the dark masses of the receding clouds. At 11

17. *Character, Manners, &c.* The character of the Western States is mixed, but the predominant traits are those of Virginia, and of New England. Kentucky was settled from Virginia and North Carolina, while Ohio is a scion of New England. These two States have in turn sent their population further west. But there is much sectional character, much of the openness and boldness of the men and their descendants who contested every inch of territory with savages, whose houses were garrisons, and who fought at the threshold for their hearths and altars. The Kentucky character pervades, more or less, all the Western States, and it is a creditable, though a peculiar mark. To estimate the sons, we must describe the fathers, and many of the early settlers yet alive. The "Big Knives," as the first hunters were called by the Indians, from their swords, had too little fear of danger to shrink from a forest so stained with massacres, that it was called the "Dark and Bloody Ground." This was the appalling name of Kentucky. Beautiful as it now is, it was more so in its uncultivated state, when the "wilderness blossomed as the rose." It was a forest solitude, unrivalled on earth. It was shaded with trees that had no parallel eastward of the mountains, and under them the tall grass supplied food for innumerable herds of buffalo and deer. It was a grand natural park, where nations came to take their game. Everything in this wonderful country was found to be on a scale of magnificence. The trees were giants of the vegetable creation ; the caves extended under navigable rivers, to the extent of eastern counties ; and bones of the mammoth lay strewed around the springs, indicating a new and wonderful aspect of animal life. This lonely paradise of woods, waters, and flowers, to which every animal that was in Eden seemed gathered, was the hunting-ground, not the abode, of savages.

The first explorers were lost in admiration, and their reports were received like the accounts of the New World, in Spain. Before this, the country had not, indeed, been fully discovered. The navigators had entered inlets and bays, and the settlers were on the line of coast. The true discoverers, the bold Argonauts to these Hesperides, were Finley and Boone. These were men of rude nurture but of high poetic feeling, yet cool, circumspect, and the bravest of the brave. They were no misanthropes, though they had a passion for the solitude of the forest. They "loved not man the less, but nature more." Their May of life was in the waving woods, and danger was a cheap price for their favorite pursuit.

These adventurers were more daring than Cortez or Pizarro, for they went singly to invade nations. Harrod, one of the settlers, became so much attached to sylvan life, that, long afterwards, when the country was studded with villages, and bending with harvests, when he had wealth and honors, and a happy family around him, he used to stray away for weeks in the distant forest. A tree looked to him like a friend, and the forest seemed to be his home. He died as he had lived ; from his last excursion he returned not, and the time and manner of his death are alike mysterious. Had he thus disappeared in ancient Greece, we should have had in Ovid the account of his metamorphosis or transformation to some noble tree. Boone, also, died in his forest ; he retired before the wave of emigration, and required a wilderness to himself. He was dislodged like a hunted deer, from one covert to another. He died in old age, far from men, and his body was found in the attitude of shooting ; he was sitting, resting his rifle on a log, and bending his eye along the barrel. Boone was an extraordinary man. He was a hunter fit to stand by Nimrod, "and give direction." He was a patriot, but in his conception, the civil compact was an association of hunters, in which the authority belonged to the most steady of heart, hand, and eye. Roads and canals, agriculture and manufactures, formed no part of his Utopia ; and he was never so happy as when most distant from all trace of them. But Kentucky, the child of his affections, became a changeling, and he left it for more solitary regions.

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in the evening, Mrs. F. was safely delivered of a female infant, and, notwithstanding all, did well. The babe, from preceding circumstances, was feeble and sickly, and I saw could not survive. At midnight, we had raised a blazing fire. The children came into the boat. Supper was prepared, and we surely must have been ungrateful not to have sung a hymn of deliverance. There can be but one trial more for me, that can surpass the agony of that day, and there can never be on this earth, a happier period than those midnight hours. The babe stayed with us but a day and a half, and expired. The children, poor things, laid it deeply to heart, and raised a loud lament. We were, as I have remarked, far away from all human aid and sympathy, and left alone with God. We deposited the body of our lost babe, — laid in a small trunk for a coffin, — in a grave amid the rushes, there to await the resurrection of the dead. The prayer made on the occasion by the father, with the children for concourse and mourners, if not eloquent, was, to us, at least, deeply affecting. The grave is on a high bank, opposite to the second Chickasaw bluff, and I have since passed the rude memorial which we raised on the spot ; and I passed it, carrying to you my miserable and exhausted frame, with little hope of renovation, and in the hourly expectation of depositing my own bones on the banks of the Mississippi."

The peculiar character of the West partakes of that of Kentucky, though there is hardly any exact standard. All European nations have sent emigrants, and there are separate communities of foreigners. In general, all the heterogeneous inhabitants mingle together with amity, and are becoming gradually incorporated into one mass. Society is nearer to its elements than in older communities, and the distinction of classes is slight. All are mutually dependent. There is a deep foundation for independent feeling ; men grow up in the pursuits of agriculture, and form their own characters, receiving less of the impress of society than in New England. Brought up to depend upon themselves, they are prompt to decide and to act. They feel in their state of society, the equality which everything renders practical, and the laborer is as bold in his bearing, and as independent in his feelings, as the merchant or the land-holder. Few but the traveling emigrants are miserably poor, and many of these are entirely destitute.* The traveler in the Western States will form his opinion of the people somewhat from those with whom he associates in the steamboats. He will perhaps find them too much given to "rude mirth," but he will estimate highly a spirit of civility, and mutual accommodation.

The boatmen, who, to the number of many thousands, were found on the rivers, have nearly disappeared since the general use of steamboats. They were a riotous, depraved, and depraving class ; and though the practice of gouging was never in use among them, or in the West, yet they were so bad in all things, that they could gain no defence from any charge, by appealing to their general character.† Many of the pioneers of civilization are rude and unprincipled ; but a desperate course of life, and the dangers of the frontiers, have left few of those reckless people in the Western States. Many there are, who live in the distant territories, by hunting, or traffic with the Indians.* In the distant settlements, where society is hardly organized, offences against it are sometimes punished in a summary manner by the *regulators*, or associations made for that purpose.†

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* Mr. Flint gives the following descriptions ; and similar sufferings are but too common.

"I found in Cincinnati great numbers of emigrants, most of them from the North. They were but too often wretchedly furnished with money, and the comforts almost indispensable to a long journey. It seemed to have been their impression, that if once they could arrive at the land of milk and honey, supplies would come of course. The autumn had been unusually sickly. The emigrants had endured great exposure in arriving here. Families were crowded into a single, and often in a small and uncomfortable apartment. Many suffered, died, and were buried by charity. Numerous instances of unrecorded suffering, of the most exquisite degree, and with every agonizing circumstance, occurred. The parties were often friendless, moneyless, orphans, infants, widows in a strange land, in a large town as humane as might be expected, but to which, unfortunately, such scenes of suffering had become so frequent and familiar, as to have lost their natural tendency to produce sympathy and commiseration. The first house which I entered in this town was a house, into one room of which was crowded a numerous family from Maine. The husband and father was dying, and expired while I was there. The wife was sick in the same bed, and, either from terror or exhaustion, uttered not a word during the whole scene. Three children were sick of fevers. If you add, that they were in the house of a poor man, and had spent their last dollar, you can fill out the picture of their misery. It is gloomy to reflect, that the cheering results of the settlement of our new States and Territories, are not obtained without numberless accompaniments of wretchedness like this."

"I will record in this place another narrative, that impressed me deeply. It was a fair sample of the cases of extreme misery and desolation, that is often witnessed on this river. In the Sunday School at New Madrid we received three children, who were introduced under the following circumstances. A man was descending the river with these three children in his pirogue. He and his children had landed on a desert island, on a bitter, snowy evening in December. There were but two houses, which were at a little prairie opposite the island, within a great distance. He wanted more whisky, although he had already been drinking it too freely. Against the persuasions of his children he left them, to cross over in his pirogue to these houses, and renew his supply. The wind blew high, and the river was rough. Nothing would dissuade him from this dangerous attempt. He told them he should return to them that night, left them in tears, and exposed to the pitiless pelting of the storm, and started for his carouse. The children saw the boat sink, before he had half crossed the passage. The man was drowned. These forlorn beings were left without any other covering than their scanty and ragged dress, for he had taken his last blanket with him. They had neither fire nor shelter, and no other food than uncooked pork and corn. It snowed fast and the night closed over them in this situation. The elder was a girl of six years, but remarkably shrewd and acute for her age. The next was a girl of four, and the youngest a boy of two. It was affecting to hear her describe her desolation of heart, as she set herself to examine her resources. She made them creep together and draw their bare feet under her clothes. She covered them with leaves and branches, and thus they passed the first night. In the morning the younger child wept bitterly with cold and hunger. The pork she cut into small pieces and made them chew corn with these pieces. She then persuaded them to run about by setting them the example. Then she made them return to chewing corn and pork. It should seem as if Providence had a special eye to these poor children, for in the course of the day some Indians landed on the island, found them, and, as they were coming up to New Madrid, took them with them."

† "The terms of the navigation are as novel as are the forms of the boats. You hear of the danger of 'riffles,' meaning, probably, ripples, and planters, and sawyers, and points, and bends and shoots, a corruption, I suppose, of the French 'chute.' You hear the boatmen extolling their prowess in pushing a pole, and you learn the received opinion, that a 'Kentuck' is the best man at a pole, and a Frenchman at an oar. A firm push of the iron-pointed pole on a fixed log, is termed a 'reverend set.' You are told when you embark, to bring your 'plunder' aboard, you hear about moving 'fernenst' the stream ; and you gradually become acquainted with a vocabulary of this sort. The manners of the boatmen are as strange as their language. Their peculiar way of life has given origin not only to an appropriate dialect, but to new modes of enjoyment, riot and fighting. Almost every boat, while it lies in the harbor, has one or more fiddles on board, to which you often see the boatmen dancing. There is no wonder that the way of life which the boatmen lead, in turn extremely indolent and extremely laborious ; for days together requiring little or no effort, and attended with no danger, and then, on a sudden, laborious and hazardous, beyond Atlantic navigation ; generally plentiful as respects food, and always so as regards whisky, should always have seductions, that prove irresistible to the young people that live near the banks of the river."

As the character of Kentucky seems to be the pervading one of the West, it is proper to describe its prominent points. It is a branch of that of Virginia, modified by a more adventurous, but secluded life. The Kentuckian is bold in his bearing, and lofty in his port; but

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* The following is a description of one of the frontier men, taken from the Western Monthly Review.

"Michael Shuckwell, or, as he has been more familiarly denominated, Mike Shuck, may be presented as a sample of those voluntary barbarians. Amongst the earliest settlers of Kentucky, Mike Shuck was known a white-headed, hardy urchin, whom nobody claimed kin to, and who disclaimed connexion with all mankind. He was inured to danger in the course of the Indian wars of that period; and when the celebrated Colonel Boone migrated to this country, Mike was one of his numerous followers. Advancing as the settlement progressed, for the convenience of hunting, he has at last found himself pushed beyond the boundary of that tract of country to which the Indian title has been extinguished. At present Mike Shuck claims a portable citizenship, or a floating title to a residence that he locates for the time being, whenever he may chance to lay himself down for the night. His rusty rifle has been his constant companion since his first campaign under General George Rogers Clark. He possesses, in an eminent degree, a knowledge of all the minutiæ of trapping, and he appropriates his autumns, the proper season for this branch of his business, in exploring the small creeks that put into the Missouri above the settlements. He is frequently discovered 'at the peep of dawn,' bare-headed and bare-footed, pursuing the meandering of these water-courses, bending under a load of traps, to learn whether or not his bait has attracted the cautious victim; or for the purpose of locating his traps more advantageously. Such is the accuracy of his skill, that Mike Shuck can make up a pack of beavers, where an Indian, with all his rude knowledge of natural history, would esteem the prospect hopeless. A gentleman who was in the pursuit of elk, about the middle of November last, discovered this modern Crusoe at evening, laden with his effects, that by great good fortune at this time amounted to about a pack-horse load. He proposed to encamp with him for the night. Mike muttered a kind of grumbling assent, and led the way, first through an extensive hazle thicket, thence descending into a ravine, he proceeded by a devious route through a compact grove of swamp-ash, and at length arrived at a cheerful fire that had previously been lighted up by our hero, but for which the place would have been as dreary as purgatory. The owls themselves, however pressing their necessities, could scarcely have flapped their way into this dismal labyrinth. But Mike and his plunder, as he very properly termed it in the instance, (for it was the legitimate property of the Indians,) was safe. Mike Shuck threw down his burden, and turned to his follower with a malicious smile, or rather a hysteric grin, and desired him to be seated. The hospitality of his board, if a bear skin spread on the ground deserves the name, was tendered with little ceremony, and consisted of a beaver-tail and an elk marrow-bone, both of which were prepared on the coals by mine host in his proper person. Mike, as I have before remarked, claims no family connexions; and if he ever had any, he has outlived them; he is, therefore, making no provisions for legacy hunters. But he is always, when he deigns to make use of his tongue, grumbling about his arrangements for an easy, independent old age, and speaks of it as if it was very far distant, although he has attained almost fourscore. When the trapping season is over, he betakes himself to his craft, as he is pleased to term a cotton-wood canoe, and proceeds to market with his usual indifference towards the elements."

† In the following case, related by Audubon, regulating seems defensible.

"On our return from the Upper Mississippi, I found myself obliged to cross one of the wide prairies, which, in that portion of the United States, vary the appearance of the country. The weather was fine, all around me was as fresh and blooming as if it had just issued from the bosom of nature. My knapsack, my gun, and my dog, were all I had for baggage and company. But, although well moccassined, I moved slowly along, attracted by the brilliancy of the flowers, and the gambols of the fawns around their dams, to all appearance as thoughtless of danger as I felt myself. My march was of long duration. I saw the sun sinking into the horizon long before I could perceive any appearance of woodland, and nothing in the shape of man had I met that day. The track, which I followed was only an old Indian trace, and, as darkness overshaded the prairie, I felt some desire to reach at least a copse, in which I might lie down to rest. The night-hawks were skimming over and around me, attracted by the buzzing wings of the beetles, which form their food, and the distant howling of wolves, gave me some hope that I should soon arrive at the skirts of some woodland. I did so, and almost at the same instant a fire-light attracting my eye, I moved towards it, full of confidence that it proceeded from the camp of some wandering Indians. I was mistaken: — I discovered from its glare that it was from the hearth of a small log cabin, and that a tall figure passed and repassed between it and me, as if busily engaged in household arrangements. I reached the spot, and presenting myself at the door, asked the tall figure, which proved to be a woman, if I might take shelter under her roof for the night. Her voice was gruff, and her attire negligently thrown about her. She answered in the affirmative. I walked in, took a wooden stool, and quietly seated myself by the fire. The next object that attracted my notice was a finely formed young Indian, resting his head between his hands, with his elbows on his knees. A long bow rested against a log wall near him, while a quantity of arrows and two or three raccoon skins lay at his feet. He moved not; he apparently breathed not. Accustomed to the habits of the Indians, and knowing that they pay little attention to the approach of civilized strangers (a circumstance which in some countries is considered as evincing the apathy of their character), I addressed him in French, a language not unfrequently partially known to the people of the neighborhood He raised his head, pointed to one of his eyes with his finger, and gave me significant glance with the other. His face was covered with blood. The fact was, that an hour before this, as he was in the act of discharging an arrow at a raccoon in the top of a tree, the arrow had struck upon a cord, and sprung back with such violence into his right eye as to destroy it for ever. Feeling hungry, I inquired what sort of fare I might expect. Such a thing as a bed was not to be seen, but many large untanned bear and buffalo hides lay piled in a corner. I drew a fine time-piece from my breast, and told the woman it was late, and that I was fatigued. She had espied my watch, the richness of which seemed to operate upon her feelings with electric quickness. She told me there was plenty of venison and jerked buffalo meat, and that on removing the ashes I should find a cake. But my watch had struck her fancy, and her curiosity had to be gratified by an immediate sight of it. I took the gold chain that secured it from around my neck, and presented it to her. She was all ecstasy, spoke of its beauty, asked me its value, and put the chain around her brawny neck, saying how happy the possession of such a watch would make her. Thoughtless, and, as I fancied myself, in so retired a spot, secure, I paid little attention to her talk or her movements. I helped my dog to a good supper of venison, and was not long in satisfying the demands of my own appetite. The Indian rose from his seat, as if in extreme suffering. He passed his dignity is dashed with humor and gayety. He has a degree of modest assurance, that belongs to men who are satisfied with their own qualifications. He deems himself equal to any man, and the abstract conception of a superior, never occurred to him. He never mars his fortunes by an idle distrust of himself; he believes himself capable of accomplishing anything, and the belief renders him so. Hospitality and generosity, which are virtues in common men, are none in the Kentuckian; they are the effect of his impulses, a part of his instinct. He is not given to falsehood, for he is not accessible to fear. He is courteous with the civil, and with the ungentle he is also froward. He will fight for any cause or for no cause, but he will not commence the quarrel. His pride is a part of his life, and he defends it; his honor is the best of his possessions, and he suffers no encroachment. In one respect he is unfortunate; he has not enough to do; there are no Indians to be hunted, or forests to be cleared; the country is a garden, the proprietor rich, and his restless spirit is sometimes urged by ennui into the borders of dissipation.

17. *Amusements.* The rifle furnishes part of the amusements of the West. It is used universally, and with unerring skill. The smallest visible mark within its range is hit, and the comparative excellence of the piece is a frequent subject for wagers.* To kill a squirrel with

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and repassed me several times, and once pinched me on the side so violently, that the pain nearly brought forth an exclamation of anger. I looked at him. His eye met mine; but his look was so forbidding, that it struck a chill into the more nervous part of my system. He again seated himself, drew his butcher knife from its greasy scabbard, examined its edge, as I would that of a razor suspected dull, replaced it, and again taking his tomahawk from his back, filled the pipe of it with tobacco, and sent me expressive glances whenever our hostess chanced to have her back towards us. Never until this moment had my senses been awakened to the danger which I now suspected to be about me. I returned glance for glance to my companion, and rested well assured that, whatever enemies I might have, he was not of their number. I asked the woman for my watch, wound it up, and under pretence of wishing to see how the weather might probably be on the morrow, took up my gun, and walked out of the cabin. I slipped a ball into each barrel, scraped the edges of my flints, renewed the primings, and returning to the hut, gave a favorable account of my observations. I took a few bear skins, made a pallet of them, and calling my faithful dog to my side, lay down, with my gun close to my body, and in a few minutes was to all appearances fast asleep. A short time had elapsed, when some voices were heard, and from the corner of my eyes I saw two athletic youths making their entrance, bearing a dead stag on a pole. They disposed of their burden, and asking for whisky, helped themselves freely to it. Observing me and the wounded Indian, they asked who I was, and why the devil that rascal (meaning the Indian, who, they knew, understood not a word of English) was in the house. The mother, — for so she proved to be, bade them speak less loudly, made mention of my watch, and took them to a corner, where a conversation took place, the purport of which required little shrewdness in me to guess. I tapped my dog gently, — he moved his tail, and with indescribable pleasure I saw his fine eyes alternately fixed on me and raised towards the trio in the corner. I felt that he perceived danger in my situation. The Indian exchanged a last glance with me. The lads had eaten and drunk themselves into such condition, that I already looked upon them as *hors du combat;* and the frequent visits of the whisky bottle to the ugly mouth of their dam I hoped would soon reduce her to a like state. Judge of my astonishment, reader, when I saw this incarnate fiend take a large carving knife, and go to the grind-stone to whet its edge. I saw her pour the water on the turning machine, and watched her working every way with the dangerous instrument, until the sweat covered every part of my body, in despite of my determination to defend myself to the last. Her task finished, she walked to her reeling sons, and said, 'there, that 'll soon settle him! Boys, kill him, — and then for the watch.' I turned, cocked my gun locks silently, touched my faithful companion, and lay ready to start up and shoot the first who might attempt my life. The moment was fast approaching, and that night might have been my last in this world, had not Providence made preparations for my rescue. All was ready. The infernal hag was advancing slowly, probably contemplating the best way of despatching me, whilst her sons should be engaged with the Indian. I was several times on the eve of rising and shooting her on the spot: — but she was not to be punished thus. The door was suddenly opened, and there entered two stout travelers, each with a long rifle on his shoulder. I bounced up on my feet, and making them most heartily welcome, told them how well it was for me that they should arrive at that moment. The tale was told in a minute. The drunken sons were secured, and the woman, in spite of her defence and vociferations, shared the same fate. The Indian fairly danced with joy, and gave us to understand that, as he could not sleep for pain, he would watch over us. You may suppose we slept much less than we talked. The two strangers gave me an account of their once having been themselves in a somewhat similar situation. Day came, fair and rosy, and with it the punishment of our captives. They were now quite sobered. Their feet were unbound, but their arms were securely tied. We marched them into the woods off the road, and having used them as Regulators were wont to use such delinquents, we set fire to the cabin, gave all the skins and implements to the young Indian warrior, and proceeded, well pleased, towards the settlements."

* "Having resided some years in Kentucky, and having more than once been witness of rifle sports, I will present you with the results of my observation, how far rifle shooting is understood in that State. Several individuals who conceive themselves expert in the management of a gun, are often seen to meet for the purpose of displaying their skill; and betting a trifling sum, put up a target, in the centre of which a common sized nail is hammered for about two thirds of its length. The marksmen make choice of what they consider a proper distance, which may be 40 paces. Each man cleans the interior of his tube, which is called wiping it, places a ball in the palm of his hand, pouring as much powder from his horn upon it as will cover it. This quantity is supposed to be sufficient for any distance within a hundred yards. A shot which comes very close to the nail is considered as that of an indifferent marksman; the bending of the nail is somewhat better, but nothing less than hitting it right on the head is satisfactory. One out of three shots generally hits the nail, and should the shooters amount to half a dozen, two nails are frequently needed before each can have a shot. Those who drive the nail have a further trial amongst themselves, and the two best shots out of these generally settle the affair, when all the sportsmen adjourn to some house, and spend an hour or two in friendly intercourse, appointing, before they part, a day for another trial. This is technically termed 'driving the nail.' Barking off squirrels is delightful sport, and in my opinion requires a greater degree of accuracy than any

shot, would subject a sportsman to derision. "Luck is like a shot-gun mighty uncertain," is a proverb in general circulation. Various kinds of hunting and athletic sports, form a part of the amusements; which are, however, substantially the same in all parts of the United States.

18. *Education.* All that is practicable is done for education in the Western States. The importance of the subject is properly estimated by every legislator, and the number of native inhabitants who cannot read or write, is not large. A common education is within the reach of all.

19. *Religion.* In none of the Western States do the laws provide for the support of any form of worship. Religion receives little other aid from legislation, than the granting of incorporations; and by most of the constitutions clergymen are incapable of holding offices of honor or trust, in the gift of the people. There are, however, stationary clergymen in the towns, especially in Ohio, and there are so many missionaries and traveling preachers, that there is generally no want of religious instruction. The court-house is the general place of meeting, and there is no lack of the rude eloquence, that is most effectual among a new people. The principal sects are Methodists, Baptists, Presbyterians, and Catholics. In Arkansas, and in fact in some other Western States, billiards are played, and races performed, on Sunday, in the vicinity of the places of worship, and persons will sometimes step across from one to the other. This, however, is chiefly in districts where the population is thin. The camp meetings are numerously attended and impressive.*

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other. I first witnessed this manner of procuring squirrels whilst near to the town of Frankfort. The performer was the celebrated Daniel Boone. We walked out together, and followed the rocky margins of the Kentucky River, until we reached a piece of flat land thickly covered with black walnuts, oaks, and hickories. As the general mast was a good one that year, squirrels were seen gambolling on every tree around us. My companion, a stout, hale, and athletic man, dressed in a homespun hunting shirt, bare legged and moccassined, carried a long and heavy rifle, which, as he was loading it, he said had proved efficient in all his former undertakings, and which he hoped would not fail on this occasion, as he felt proud to show me his skill. The gun was wiped, the powder measured, the ball patched with 600 thread linen, and the charge sent home with a hickory rod. We moved not a step from the place, for the squirrels were so numerous that it was unnecessary to go after them. Boone pointed to one of these animals which had observed us, and was crouched on a branch about 50 paces distant, and bade me mark well where the ball should hit. He raised his piece gradually, until the *head* (that being the name given by the Kentuckians to the *sight*) of the barrel was brought to a line with the spot he intended to hit. The whip-like report resounded through the woods, and along the hill in repeated echoes. Judge of my surprise, when I perceived that the ball had hit the piece of the bark immediately beneath the squirrel, and shivered it into splinters, the concussion produced by which had killed the animal, and sent it whirling through the air, as if it had been blown up by the explosion of a powder magazine. Boone kept up his firing, and before many hours had elapsed, we had procurred as many squirrels as we wished; for you must know, that to load a rifle only requires a moment, and that if it is wiped after each shot, it will do duty for hours. Since that adventure with our veteran Boone, I have seen many other individuals perform the same feat. The *snuffing of a candle* with a ball, I first had an opportunity of seeing near the banks of Green River, not far from a large pigeon roost, to which I had previously made a visit. I heard many reports of guns during the early part of a dark night, and knowing them to be those of rifles, I went towards the spot to ascertain the cause. On reaching the place, I was welcomed by a dozen tall, stout men, who told me they were exercising, for the purpose of enabling them to shoot by night at the reflected light from the eyes of a deer or wolf, by torch light, of which I shall give you an account somewhere else. A fire was blazing near, the smoke of which rose curling among the thick foliage of the trees. At a distance that rendered it scarcely distinguishable, stood a burning candle, as if intended as an offering to the goddess of night, but which in fact was only fifty yards from the spot on which we stood. One man was within a few yards of it, to watch the effects of the shots, as well as to light the candle should it chance to go out, or replace it should the shot cut it across. Each marksman shot in his turn. Some never hit either the snuff or the candle, and were congratulated with a loud laugh; while others actually snuffed the candle without putting it out, and were recompensed for their dexterity by numerous hurrahs. One of them who was particularly expert, was very fortunate, and snuffed the candle 3 times out of 7, whilst all the other shots either put out the candle, or cut it immediately under the light." — *Audubon.*

* "None but one who has seen, can imagine the interest excited in a district of country perhaps 50 miles in extent, by the awaited approach of the time for a camp meeting; and none but one who has seen, can imagine how profoundly the preachers have understood what produces effect, and how well they have practised upon it. Suppose the scene to be, where the most extensive excitements and most frequent camp meetings have been, during the two past years, in one of the beautiful and fertile valleys among the mountains of Tennessee. The notice has been circulated 2 or 3 months. On the appointed day, coaches, chaises, wagons, carts, people on horseback, and multitudes traveling from a distance on foot, wagons with provisions, mattresses, tents, and arrangements for the stay of a week, are seen hurrying from every point towards the central spot. It is in the midst of a grove of those beautiful and lofty trees, natural to the valleys of Tennessee, in its deepest verdure, and beside a spring branch, for the requisite supply of water.

"The ambitious and wealthy are there, because in this region opinion is all-powerful; and they are there, either to extend their influence, or that their absence may not be noted, to diminish it. Aspirants for office are there, to electioneer, and gain popularity. Vast numbers are there from simple curiosity, and merely to enjoy a spectacle. The young and beautiful are there, with mixed motives, which it were best not severely to scrutinize. Children are there, their young eyes glistening with the intense interest of eager curiosity. The middle aged fathers and mothers of families are there, with the sober views of people, whose plans in life are fixed, and waiting calmly to hear. Men and women of hoary hairs are there, with such thoughts, it may be hoped, as their years invite. — Such is the congregation, consisting of thousands.

"A host of preachers of different denominations, are there, some in the earnest vigor and aspiring desires of youth, waiting an opportunity for display; others, who have proclaimed the Gospel, as pilgrims of the cross, from the remotest north of our vast country to the shores of

20. *Antiquities.* There are many remains of remote antiquity, such as might have been raised by a rather numerous but rude people, who would carry to the work more labor than art. They consist in part of mounds, varying in height from 10 or 20 to 50 and even 70 feet, and commonly of a regular conical form, sometimes truncated and sometimes complete cones, sometimes solitary and sometimes clustered together in great numbers; and in part of spacious enclosures, oval, circular, square, or polygonal, often connected with each other by long parallel lines of embankments, and in some instances comprising an extent of from 20 to 30 acres. In general the walls of circumvallation are composed wholly of earth, but sometimes consist partly of stones loosely thrown together, and traces of bricks and cement are said, though perhaps without foundation, to have been met with in some places. The mounds appear to have been used as places of burial, even if they were not constructed for this purpose; the enclosures for purposes of defence. The question as to the origin, authors, and objects of these works, has, however, given rise to much speculation, and while some look upon them as proofs of the former existence of a more civilized population in this part of the world, others see in them nothing beyond what might have been executed by the naked savages, who have possessed these regions ever since they have been known to Europeans, and others have denied that the mounds were artificial works. The Indian tribes, who have been known to the whites, have had no traditions relative to this curious subject. The works are found all over the Mississippi valley, from the St. Peter's on the north to the delta of the Mississippi, and from the western parts of New York and Virginia to the plains of the Missouri, and are almost, if not quite, always situated on the alluvial flats or bottoms of the rivers.

There is a group of remarkable mounds not far from Natchez, in the village of Seltzertown, from which pipes, weapons, utensils, &c. have been obtained. The principal mound is 35 feet in height, with a flat summit of 4 acres in extent, surrounded by a low rampart or bank 2 or 3 feet high; upon this area rise 6 other mounds, one of which is 30 feet in height, or 65 feet above the level of the plain, and a collection of smaller hillocks are scattered around. There is another and similar group of 12 or 15 mounds nearer to Natchez. The American bottom in Illinois is remarkable for the number and size of the mounds, which are scattered, "like gigantic hay-cocks," over its surface; 20 of them may be counted near Cahokia, and the largest, which is surrounded by a group of 16 or 18 smaller ones, is 90 feet in height, with a base 600 yards in circumference. Among the fortifications, those of Chillicothe, of Circleville, which gave its name to the town, and Newark, in Ohio, deserve notice. The first mentioned consists of a square enclosure, surrounded by a rampart of earth 12 feet high, and 20 feet thick at the base, and covering more than 100 acres. That of Circleville was a similar enclosure of a circular shape, but it has been mostly destroyed, although numerous burrows or mounds still stand in the vicinity. At Newark there is also a circular rampart with lines

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the Mexican gulf, and ready to utter the words, the feelings, and the experience, which they have treasured up in a traveling ministry of 50 years, and whose accents, trembling with age, still more impressively than their words, announce that they will soon travel, and preach no more on the earth, are there. Such are the preachers.

"The line of tents is pitched; and the religious city grows up in a few hours under the trees, beside the stream. Lamps are hung in lines among the branches; and the effect of their glare upon the surrounding forest is as of magic. The scenery of the most brilliant theatre in the world is a painting only for children, compared with it. Meantime the multitudes, with the highest excitement of social feeling added to the general enthusiasm of expectation, pass from tent to tent, and interchange apostolic greetings and embraces, and talk of the coming solemnities. Their coffee and tea are prepared, and their supper is finished. By this time the moon, (for they take thought, to appoint the meeting at the proper time of the moon) begins to show its disk above the dark summits of the mountains; and a few stars are seen glimmering through the intervals of the branches. The whole constitutes a temple worthy of the grandeur of God. An old man, in a dress of the quaintest simplicity, ascends a platform, wipes the dust from his spectacles, and in a voice of suppressed emotion, gives out the hymn, of which the whole assembled multitude can recite the words,—and an air, in which every voice can join. We should deem poorly of the heart, that would not thrill, as the song is heard, like the 'sound of many waters,' echoing among the hills and mountains. Such are the scenes, the associations, and such the influence of external things upon the nature so 'fearfully and wonderfully' constituted, as ours, that little effort is necessary, on such a theme as religion, urged at such a place, under such circumstances, to fill the heart and the eyes. The hoary orator talks of God, of eternity, a judgment to come, and all that is impressive beyond. He speaks of his 'experiences,' his toils and travels, his persecutions and welcomes, and how many he has seen in hope, in peace, and triumph, gathered to their fathers; and when he speaks of the short space that remains to him, his only regret is, that he can no more proclaim, in the silence of death, the mercies of his crucified Redeemer.

"There is no need of the studied trick of oratory, to produce in such a place the deepest movements of the heart. No wonder, as the speaker pauses to dash the gathering moisture from his own eye, that his audience are dissolved in tears, or uttering the exclamations of penitence. Nor is it cause for admiration, that many, who poised themselves on an estimation of higher intellect and a nobler insensibility, than the crowd, catch the infectious feeling, and become women and children in their turn; and though they 'came to mock, remain to pray.'"—*Flint's Geography.*

diverging in different directions. In the western part of New York, there are three circular forts about 8 miles distant from each other, which have been thought to have enclosed and defended an ancient city. The American traveler, Captain Carver, describes an extensive work in the northern part of Wisconsin, about a mile in circuit, and requiring for its defence 5,000 men.

CHAPTER XXVIII. TENNESSEE.

PHYSICAL GEOGRAPHY.

1. ***Boundaries and Extent.*** Tennessee is bounded N. by Kentucky ; E. by North Carolina ; S. by Georgia, Alabama, and Mississippi ; and W. by the river Mississippi, separating it from Missouri and Arkansas. Its length is about 430 miles ; its breadth 104. It lies between 35° and 36° 36′ N. lat., and between 81° 30′ and 90° 10′ W. long., and contains 45,000 square miles.

2. *Mountains.* The ***Cumberland Mountains***, extend through the State from northeast to southwest, dividing it into two sections, which geographers distinguish as ***East*** and ***West Tennessee.*** In East Tennessee are many parallel ridges, the most lofty of which are the ***Laurel***, ***Stone***, ***Yellow***, ***Iron***, ***Bald***, and ***Unaka Mountains.*** All these are peaks of a continued chain, ***Walden's*** and ***Copper Ridge***, and ***Church***, ***Powell's***, and ***Bay's Mountains***, are in the northeast. The summits of some of these mountains exhibit plateaus of considerable extent, which admit of good roads, and are inhabited and cultivated. The mountains and hills subside as they approach the Mississippi and Ohio.

3. *Valleys.* The valleys of the small rivers are extremely beautiful, and rich beyond any of the same description in the Western States. The valleys of the great streams of the Tennessee and Cumberland, differ little from the alluvions of the other great rivers of the West. On the small valleys are many fine plantations, and yet so lonely that they seem lost among the mountains.

4. *Rivers.* The ***Tennessee*** rises in the Alleghany Mountains, traverses East Tennessee, and the northern section of Alabama, re-enters Tennessee, crosses its whole width into Kentucky, and passes into the Ohio, 57 miles above its junction with the Mississippi. It is near 1,200 miles in length, and is the largest tributary of the Ohio. It has numerous branches, and is navigable for boats for 1,000 miles ; most of the branches rise among the mountains, and are too shallow for navigation, except during the floods which take place occasionally, at all seasons of the year, and admit flat boats to be floated down to the main stream. The principal branches are the ***Holston*** and ***Clinch***, from the southwestern part of Virginia, and the ***French Broad*** and ***Hiwassee***, from North Carolina. The current of the Tennessee is in general rapid, and is favorable only to downward navigation. At Muscle Shoals, the river expands to a width of several miles, and is very shallow. The principal tributaries of the Tennessee are the *Elk* and *Duck.* The ***River Cumberland*** rises in the Cumberland mountains in Kentucky, and after a course of nearly 200 miles in that State, passes into Tennessee, through which it makes a circuit of 250 miles, when it re-enters Kentucky and falls into the Ohio. In Tennessee it has several branches ; it is a broad, deep, and beautiful stream ; steamboats of the largest size ascend this river to Nashville, and keel-boats, in moderate stages of the water, 300 miles further. The ***Obion***, ***Forked Deer***, ***Big Hatchy***, and ***Wolf*** rivers, in the western part of this State, flow into the Mississippi ; these are all navigable for boats. No part of the western country is better watered than Tennessee.

5. *Climate.* The climate is delightful, being milder than in Kentucky, and free from the intense heat which prevails in the southern portion of the Mississippi valley. Snows of some depth are frequent in the winter, but the summers, especially in the higher regions, are mild. In these parts the salubrity of the climate is thought to equal that of any part of the United States ; but the low valleys, where stagnant waters abound, and the alluvions of the great rivers, are unhealthy.

6. *Soil.* The soil in East Tennessee is remarkably fertile, containing great proportions of lime. In West Tennessee, the soil is various, and the strata descend from the mountains in the following order ; first, loamy soil, or mixtures of clay and sand ; next, yellow clay ; thirdly, a mixture of red sand and red clay ; lastly, white sand. In the southern parts, are immense beds of oyster shells, on high table land, at a distance from any stream ; some of these shells are of an enormous size. The soil of the valleys and alluvions is extremely fertile.

7. *Vegetable Productions.* Nearly all the forest trees of the western country are found in this State, but the laurel tribes are not common. Juniper, red-cedar, and savin, cover the mountains. Apples, pears, and plums, which are properly more northern fruits, are raised in great perfection. The sugar maple is very abundant.

8. *Minerals.* Inexhaustible quarries of gypsum, of the finest quality, abound in East Tennessee. Marble, in many beautiful varieties is abundant. Iron ore is found in plenty, and some lead mines have been worked. Salt springs are numerous, but the water is not sufficiently strong to admit of their being made profitable. Nitrous earth abounds in the saltpetre caves. The gold region, already described in the Southern States, extends into the southeastern part of Tennessee. The spot affording the metal, is situated about 12 miles south of the Tellico plains, near the Unaka mountain, which separates this State from North Carolina. The gold occurs in small grains, and appears to have been produced by the disintegration of the rocks which compose the mountain ; it is found in the small rivulets and brooks, and also on the declivities of the mountains, and very near their summits. It is contained in a stratum of the soil of 10 or 12 inches in depth, and is separated from the earth by washing. Tennessee also contains an ore of zinc, of excellent quality. The Cumberland Mountains are rich in coal. Manganese, roofing slate, and magnetic iron-ore, may be also numbered among the mineral productions, and mineral springs are numerous. The great coal-field of Tennessee is co-extensive with the Cumberland Mountains, whose summit is occupied by the coal-measures. It extends into Kentucky across the Cumberland, and, perhaps, across the Kentucky River, and into Alabama across the Tennessee ; the coal crops out at numerous points on the declivities of the mountains, and is worked in Fentress, where it is sent down the Obey River to the Cumberland, in Morgan, where Emery's River affords facilities for transporting it to the Tennessee, and in the Sequatchee Valley ; from these points, and from the banks of the Cumberland in Kentucky, it is carried down the rivers in flat boats as far as New Orleans.

9. *Caves.* The mountains of this State contain a great number of caverns, which are among the most remarkable features of the country. They are of so frequent occurrence that very few have been explored ; and little more is known of them, than that they abound in nitrous earth. One of them has been descended 400 feet below the surface, and found to consist of a smooth limestone rock, with a stream of pure water at the bottom, sufficient to turn a mill. A cave on a high peak of the Cumberland Mountain has a perpendicular descent, the bottom of which has never been sounded. A cave which may be descended some hundred feet, and traced for a mile, is an object too common to be pointed out to the traveler's attention. Some of these caves are several miles in extent ; they are in limestone. The *Big Bone Cave,* has received its name from its containing the huge bones of the mastodon and megalonyx.

Among the Enchanted Mountains, the name given to several spurs of the Cumberland Ridge, are some very singular foot-prints, marked in the solid limestone rock. These are tracks of men, horses, and other animals, as distinctly marked as though but yesterday impressed in clay or mortar. Their appearance often indicates that the feet which made them, had slidden, as if in descending a declivity of soft clay. The human feet have uniformly 6 toes, with the exception of one track, which is thought to be that of a negro. One of the tracks is 16 inches long, and 13 inches wide from toe to heel, with the ball of the heel 5 inches in diameter. On the shore of the Mississippi, is a similar impression of two human feet in a mass of limestone. No satisfactory explanation has ever been given of these singular appearances.

10. *Face of the Country.* This State is more diversified in appearance than any other in the western country. Mountains and hills occupy a great portion of its surface, and the whole region offers, in general, the most striking and picturesque scenery.

POLITICAL GEOGRAPHY

1. *Divisions.* This State is divided into East and West Tennessee ; the former has 26 counties, and the latter 45.*

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* *West Tennessee.*

Bedford
Benton
Cannon
Carroll
Coffee
Davidson
Dickson
Dyer
Fayette
Fentress
Franklin
Gibson
Giles
Hardiman
Hardin
Haywood
Henderson
Henry
Hickman
Humphreys
Jackson
Lauderdale
Lawrence
Lincoln
Madison
Marshall

Population at different Periods.

	Whites.	Slaves.	Free Colored.	Total Pop.
1790, ...	32,013	3,417	361	35,791
1800, ...	91,709	13,584	309	105,602
1810, ...	215,875	44,535	1,317	261,727
1820, ...	339,727	80,107	2,979	422,813
1830, ...	535,746	141,603	4,555	681,904
1840, ...				

2. *Towns.* The city of *Nashville*, in West Tennessee, is the largest town in the State, and the seat of government. It stands on the south bank of Cumberland River, in a pleasant situation, near some high bluffs, and is much frequented during the hot months, by the inhabitants of the lower country. The river is navigable by steamboats to this place. The eminences, rising with a gentle inclination, afford many agreeable seats for the elegant mansions of the opulent citizens. The houses are generally neat and tasteful, and among the public buildings are the court-house, lunatic asylum, a penitentiary conducted on the Auburn system, 6 churches, the halls of Nashville University, academy, &c. The trade and business are extensive ; there are about 15 steamboats employed on the river, beside great numbers of keel-boats and flat boats ; and among the manufacturing establishments are several brass and iron founderies, rolling-mills, tanneries, &c. Population, 8,000. The inhabitants of Nashville are favorably distinguished for their intelligence and refinement, and its educational institutions are numerous and well supported. The *Hermitage*, the plantation of ex-president Jackson, is about 12 miles above Nashville. *Gallatin*, higher up the valley of the Cumberland, and *Clarksville*, on the river below, are flourishing villages.

Knoxville is the chief town of East Tennessee. It is situated on the Holston, and is a thriving place, with some trade. Knoxville was formerly the capital of the State, and it contains the halls of East Tennessee College. Population, 2,000. *Murfreesborough*, in West Tennessee, was formerly the seat of government for the State ; the country around it is fertile, but it is a small town. *Columbia*, on Duck River, is a busy and flourishing village, with 1,500 inhabitants. *Memphis* has a fine situation near the site of old Fort Pickering, on the Mississippi, at a point where the great western road strikes the river. It is a new settlement, but is a growing place. Population, 2,000.

3. *Agriculture.* Agriculture forms almost the sole occupation of the inhabitants of Tennessee. A large proportion of the land is productive, and many of the valleys of East Tennessee, and much of the middle and western sections, are eminently fertile. Indian corn and cotton are the staples of the State, and a good deal of tobacco, hemp, and wheat are raised. Cotton thrives in almost every part except in the northeastern triangular section, and the crop is about 150,000 bales ; but the climate of Tennessee is not so well adapted for this plant as that of the States south of the 35th parallel of latitude ; the new lands of the western part have, however, been chiefly devoted to this crop ; the tobacco crop is about 5,000 hogsheads. In East Tennessee, grazing is much attended to, and great numbers of live stock are driven out of the State, to the eastern markets.

4. *Commerce.* The pine forests of the eastern section of the country, afford tar, spirits of turpentine, rosin, and lampblack ; these, with whisky, coarse linens, cotton bagging, live stock, pork, bacon, lard, butter, saltpetre, gunpowder, flour, coal, fruits, cotton, maize, and tobacco, constitute the exports of Tennessee. Estimated value of the exports, 8,000,000 dollars. The estimated value of real property in the State, is 150,000,000 dollars.

5. *Railroads.* The central part of the State transports its surplus productions and its im-

Maury
McNairy
Montgomery
Obion
Overton
Perry
Robertson
Rutherford
Shelby
Smith
Sumner
Stewart
Tipton
Warren
Wayne
Weakley
White
Williamson
Wilson

East Tennessee

Anderson
Bledsoe
Blount
Bradley
Campbell
Carter
Claiborne
Cocke
Grainger
Greene
Hamilton
Hawkins
Jefferson
Johnson
Knox
McMinn
Marion
Meigs
Monroe
Morgan
Powell
Rhea
Roane
Sevier
Sullivan
Washington

ported supplies on the Tennessee, the Cumberland, and the Mississippi ; but the eastern part has only the choice of the long and tedious course of the Tennessee through Alabama, interrupted by several serious obstructions to its navigation, or of the equally slow and difficult passage of the mountains, by wagons. Several schemes have accordingly been projected, to connect this district with the eastern ports by an easier route, and there is now a prospect of the speedy construction of a railroad from Charleston to Knoxville, through the valley of the French Broad River, and of another from the Savannah to the Tennessee. The State takes one third of the stock of any railroad, of which two thirds are secured from companies and individuals. The *New Orleans and Nashville Railroad*, will connect those two cities. The only works of this kind as yet executed, are the *Memphis and Lagrange Railroad*, 50 miles in length, with a branch of 13 miles, from Moscow to Somerville, and the *Hiwassee Railroad*, from Calhoun, on the Hiwassee, to Knoxville, 70 miles.

6. *Manufactures.* The manufactures of iron, hemp, cotton, and cordage are considerable in amount, but there are no large manufacturing establishments.

7. *Government.* The legislature is called the General Assembly, and consists of a Senate and House of Representatives. The members of both Houses are chosen biennially, as also the Governor, who is eligible 6 years out of 8. The Governor is elected by a plurality. Suffrage is universal. Clergymen are excluded from office. The State sends 13 representatives to Congress.

8. *Religion.* The Methodists and Baptists are the most numerous sects ; the former numbering about 30,000, and the latter about 20,000 communicants. The Presbyterians have 120 churches and 10,000 communicants, exclusive of the Cumberland Presbyterians, who are also numerous. The Episcopalians have 1 bishop and 12 ministers, and there are Roman Catholics, Lutherans, Friends, Christians, &c.

9. *Education.* There are 68 academies in the State, one having been endowed in each county, by grants of public land, but many of these are not in actual operation. The collegiate institutions are the *University of Nashville*, in that city, one of the most respectable educational institutions in the West, having 6 teachers, and 130 students ; *Greeneville College*, at Greeneville ; *Washington College*, in Washington county ; *East Tennessee College*, at Knoxville ; and *Jackson College*, at Columbia. There is also a Presbyterian theological seminary, at Maryville.

10. *History.* Tennessee is one of the oldest of the Western States, and the first settlements were made between the years 1765 and 1770. The earliest inhabitants were emigrants from North Carolina and Virginia, and the country was included within the limits of North Carolina till 1790, when it was placed under a territorial government, with the name of the Territory South of the Ohio. In 1796, a constitution was formed, and Tennessee was admitted into the Union as an independent State. In 1834, the constitution was revised and amended.

CHAPTER XXIX. KENTUCKY.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* Kentucky is bounded N. by Illinois, Indiana, and Ohio ; E. by Virginia ; S. by Tennessee ; and W. by Missouri and Illinois. It extends from 36° 30′ to 39° 10′ N. latitude, and from 81° 50′ to 89° 20′ W. longitude. It is 300 miles in length, from east to west, with a mean breadth of 150. It contains 40,000 square miles.

2. *Rivers.* The *Ohio* washes the whole southern limit ; it will be described in the next chapter. The *Mississippi* forms a small part of the western boundary. The *Cumberland* and *Tennessee* rivers pass through the western extremity of the State, into the Ohio. In the northern part, the *Licking* and *Kentucky* rivers take their rise in the Cumberland Mountains, and flow northwesterly into the Ohio ; they are each about 200 miles in length ; the latter is navigable for 150 miles, and has a width of 150 yards at its mouth ; the current is rapid, and the shores are high. For a great part of its course, it flows between perpendicular banks of limestone. The voyager passing down this stream, experiences an indescribable sensation on looking upwards to the sky from a deep chasm hemmed in by lofty parapets. *Green River* rises in the eastern part, and flows westerly into the Ohio. It has a boat navigation of 200 miles. The *Big Sandy* forms a part of the eastern boundary, and flows north into the Ohio.

3. *Climate.* This State has a temperate and salubrious climate, differing little from that of Tennessee. The air, however, is somewhat moister. The winter begins late in December, and never lasts longer than 3 months.

4. *Soil.* Kentucky is one of the most fertile of the Western States. There are many tracts called "barrens," from being bare of trees, yet they have a good soil. The central parts of the State are the most productive.

5. *Geology. Minerals.* The mineral resources of Kentucky include iron ore, coal, salt, and lime. The geological character of the rock formations, the horizontal or slightly inclined position of the strata, which have been much furrowed by the agency of currents of water, and the nature of the included minerals, show that this State forms a section of the great Trans-Alleghany region of newer secondary deposites, whose extent has never been ascertained. Bituminous coal is widely diffused, and valuable seams are often exposed on the river-cliffs and other places, where the strata have been cut through. Some iron is made in different quarters, but the amount is inconsiderable. Salt springs are found in almost all parts of the State, and several hundred thousand bushels of salt are made at different works; but as this article is furnished at a cheaper rate from the Kanawha salines, it is not manufactured in large quantities. Saltpetre-earth, or nitrate of lime, is found in many of the caves which abound in this region, and during the war it was extensively used for making saltpetre. The salt springs received the name of licks from the early settlers, on account of their being the favorite resort of the wild animals, which were fond of licking the saline efflorescences so abundant around them; the same name is also applied to the sulphuretted fountains, which are very numerous. The Big Bone Lick, in Boone county, the Upper and Lower Blue Licks on the Licking River, Mud Lick, or the Olympian Springs, near Owingsville, Harrodsburg Springs and Greeneville Springs, Flat Lick and Mann's Lick near Louisville, White Lick in Union county, Elk Lick in Hart, &c., are among these numerous springs, of the chemical composition of which we know little. The hunters, who first visited this region, found them the favorite resort of the bison, elk, deer, &c., and, from the gigantic bones which have been discovered at Big Bone Lick, and have given that spot its name, it appears, that, at an earlier period, they were frequented by huge animals of extinct races. This lick occupies the bottom of a boggy valley, kept wet by a number of salt springs, which rise over a surface of several acres. Burning springs also occur in the eastern mountainous district; these are, as is well known, currents of carburetted hydrogen gas, issuing from the earth, which, on the application of fire, will sometimes burn for a great length of time. Oil or petroleum springs are found near Burkesville, in Allen county, and other places, and the oil is collected by the people, who attribute to it great and various medicinal virtues. It is well known further east under the name of Seneca Oil.

Mammoth Cave.

6. *Natural Curiosities.* Like Tennessee, this State has a great number of caverns. Many of them are of a prodigious depth. The *Mammoth Cave*, near Green River, has been explored to the distance of about 3 miles.* Most of these caverns are in the southwestern part of the State, and are situated in a broken and hilly, but not mountainous country.

In this State are also many singular cavities, or depressions, in the surface of the ground, called "sink holes." They are commonly in the shape of inverted cones, 60 or 70 feet in depth, and from 60 to 300 feet in circumference at the top. Their sides and bottoms are generally covered with willows and aquatic productions. The ear can often distinguish the sound of waters flowing under them, and it is believed that they are perforations in the bed of limestone below the soil, which have caused the earth above to sink. The common people imagine them to have been huge wells, at which the mammoths of former times quenched their thirst. Sometimes the ground has been opened, and disclosed a subterraneous stream of water at the bottom of these cavities, and in one instance a mill was erected over the invisible river. Considerable streams disappear in several places and afterward rise again to the surface, at some distance below, having evidently flowed through these subterraneous channels.

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* "Its entrance is in the steep declivity of a hill. The dimensions of the mouth are about 40 feet in height, by 50 in breadth, decreasing gradually for the first half mile, till the cavern is no more than 10 feet in height and as many in breadth; at which place a partition has been erected, with a door of convenient dimensions, for the purpose of protecting the lights of visiters. There is at this place a current of air passing inwardly for 6 months, and outwardly for the remainder of the year. Sufficiently strong is it, that, were it not for the door that has been made, it

7. *Face of the Country.* Kentucky presents a waving and diversified surface, without be-

would be impossible to preserve an open light. It is called the mouth, as far as this place, on account of its being the extent of the influence of daylight, which here appears like a small star. Formerly, when the cavern was first discovered, this part of it was nearly filled with earth, which has been recently manufactured into saltpetre.

" Having prepared ourselves with a sufficient quantity of provision, oil, and candles, and taking 2 persons as guides, we took our last view of the daylight, and proceeded forward, closing the door behind us. Immediately we found ourselves in thick and almost palpable darkness, the whole of our 4 lights spread but a feeble radiance about us. Such is the height at this place, that we were hardly able to discover the top, and to see from one side to the other, was utterly impossible. From this place extended several cabins, or as travelers have named them, rooms, in different directions. This part of the cave is called the First Hopper. The soil at the bottom of the cave is very light, and strongly impregnated with salt. The sides and top are formed of rock. We proceeded forward, passing several rooms on our right, and one on our left, until we arrived at the Second Hopper, a distance of 4 miles from the mouth. About 1 mile in the rear of this, was pointed out to us by our guide, the place where the celebrated mummy was found, in a sitting posture, by the side of the cavern, enveloped in a mat, and in a complete state of preservation.

" We next entered the room denominated the Haunted Chamber. It is nearly 2 miles in length, 20 feet in height, and 10 in breadth, extending nearly the whole length, in a right line. The top is formed of smooth, white stone, soft, and much resembling the plastering of a room. There is a small quantity of water constantly, though almost imperceptibly, falling from above, which, in the course of ages, has worn from the stone at the top, some beautiful pillars, which extend to the bottom of the room. They have the appearance of being the work of art. In one of them there is formed a complete chair, with arms, which has received the name of Arm Chair. By the side of this, is a clear pool of water, strongly impregnated with sulphur. The sides of the room are likewise elegantly adorned with a variety of figures, formed from the stone at the top, and coming down upon the side of the cavern, like icicles in the winter, from the eaves of buildings, the reflection of our lights upon them forming a most brilliant appearance. At the end of this room, we descended a kind of natural staircase, to the depth of near 300 feet in many places, affording only room for one person to proceed. Here we found a beautiful stream of pure water, winding its way along between the rocks. The situation of this part of the cavern is rendered really awful, from its being associated with a variety of names that travelers have given it. The portrait of his Satanic Majesty, is painted here upon the rocks, and a large flat stone, resting its corners upon four others, is called his Dining Table. A short distance from this, is a place said to be his Forging Shop. On the whole they are admirably calculated to frighten the cowardly. We returned to the main cavern, and resumed our course, climbing over rocks that had evidently fallen from above, and passing a number of rooms on our right and left. With much exertion, we reached the place denominated the Six Corners, in consequence of 6 rooms or caverns here, taking different directions. Not having time to examine these, we proceeded to the first water fall, about 2 miles further, over a level plain. The tracks of persons who might have preceded us for ages, were as plainly visible in the sand, as when first made. There is no air stirring that would move the slightest feather, or prevent the impression of a footstep from remaining for centuries.

" We now directed our course to the Chief City, about one mile further. A large hill situated in the centre of the cave, would have exhibited a most commanding prospect, if the darkness had not obstructed our vision. One of us, however, standing upon the top, with the lights stationed at different parts of its base, obtained a novel and interesting view of the cavern. There is an echo here that is very powerful, and we improved it with a song, much to our gratification. We started forward again, traveling over a plain of 2 miles extent, and about the same distance over the rocks and hills, when we arrived at the second water-fall. The water here dashes into a pit below of immense depth. A circumstance occurred here that had nearly proved fatal to one of us. The sides of the pit are formed of loose rocks, and we amused ourselves by rolling them down, in order to hear them strike the bottom. Such is the depth of it, that a minute elapsed before we could hear them strike, and the sound was very faint. One of our party venturing too near, for the purpose of rolling a large stone, started the foundation on which he stood, and was precipitated down about 20 feet, with the tumbling stones; but, fortunately, a projecting rock saved him from destruction. This put an end to all our amusements; and, being much fatigued with a travel of 24 hours on foot, and seeing no fairer prospects of finding the end, than when we commenced, we concluded to return. We accordingly took up our line of march, returning the way we came. After being 42 hours absent from the light of day, we again found ourselves at the mouth of the cavern, and gave ourselves up to a refreshing sleep.

" There are a number of pits of great depth, in different parts of the cave, which made it necessary to be very careful in exploring it. There is danger, also, of taking some unexplored room, and becoming so lost as not to be able to find the way out. This is, however, obviated, by the precaution that has been taken as far as has been explored, to place the figure of an arrow at the entrance of every room, pointing to the mouth of the cave. Care should always be taken to preserve the light, as it would be impossible for any one to find the way back in darkness, further than the First Hopper. We found the names of ladies inscribed at the furthest points we reached, and our guide remarked, that they were the most courageous visiters he ever had. For 3 miles from the mouth, the sides and top of the cavern are covered with a remarkable quantity of bats, hanging down from the top in the form of bee hives, from 2 to 3 feet thick. They are in a torpid state, and are seldom known to fly. There are about 20 different rooms that have been discovered. This vast cavern is apparently hollow beneath, from the sound that is made by walking through many of the rooms." — *N. E. Weekly Review.*

ing mountainous, except on the eastern limit. The centre of the State is beautifully undulating, and there is a tract 100 miles in length, and 50 in breadth, which for the beauty of its landscape, the delightful aspect of its open groves, and the fertility of its soil, is thought to be unequalled in the country. In the eastern part, the mountain streams wind round the bases of the low hills, cutting deep gullies in the soil. Many of these places are overgrown with immense poplars, sometimes 8 feet in diameter, and exhibit scenes of indescribable beauty. The Barrens in the western parts are covered with grass, and trees are thinly scattered upon them

POLITICAL GEOGRAPHY.

1. *Divisions.* Kentucky is divided into 85 counties.*

Population at different Periods.

	Whites.	Slaves.	Free Colored.	Total Pop.
1790	61,133	11,830	114	73,077
1800	179,871	40,343	741	220,955
1810	324,237	80,561	1,713	406,511
1820	434,644	126,732	2,941	564,317
1830	517,787	165,213	4,917	687,917
1840				

2. *Canals and Railroads.* In 1835 a Board of Commissioners was created for the purpose of organizing a regular system of internal improvement, superintending the works authorized to be executed by the State, and subscribing in the name of the State in aid of such works undertaken by individuals, as should meet their approbation. The improvement of the navigation of the Green, Kentucky, Licking, Big Sandy, and Cumberland rivers by a series of dams and locks, is already in progress in conformity with the laws of the State, and macadamized roads have been constructed, or are constructing, in different quarters, under the same authority. The *Louisville and Portland Canal*, passing round the falls of the Ohio, is one of the most important works in the country; for although only a mile and a half in length, it is 200 feet wide at the surface, and 50 feet at the bottom, and from the peculiar difficulties encountered in its construction, is estimated to be equivalent to about 75 miles of ordinary canals; it has 4 locks, capable of admitting steamboats of the largest class, and a total lockage of 22 feet; it is constructed in the most solid and durable manner, and the cost of construction was 750,000 dollars. The *Lexington and Ohio Railroad* extends from Louisville through Frankfort to Lexington, 96 miles. The *Green River Railroad* from Hopkinsville to Eddyville, on the Cumberland River, 48 miles, is in progress. The projected route of the *Charleston and Cincinnati Railroad* extends through this State from Cumberland Gap by Lexington, to Newport or Covington.

3. *Towns.* The city of *Louisville* is the largest town, and one of the largest west of the mountains. It stands on the southern bank of the Ohio, about a quarter of a mile above the principal declivity of the falls; a stream called Beargrass Creek, falls into the river above the town, and affords a harbor for the steamboats and river craft. The site of the town is a gently

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[*] Adair
Allen
Anderson
Barren
Bath
Boone
Bourbon
Bracken
Breckenridge
Bullitt
Butler
Caldwell
Callaway
Campbell
Carrol
Casey
Christian
Clarke
Clay
Clinton
Cumberland
Daviess
Edmondson
Estill
Fayette
Fleming
Floyd
Franklin
Gallatin
Garrard
Grant
Graves
Grayson
Greene
Greenup
Hancock
Hardin
Harlan
Harrison
Hart
Henderson
Henry
Hopkins
Jefferson
Jessamine
Knox
Laurel
Lawrence
Lewis
Lincoln
Livingston
Logan
Madison
Marion
Mason
McCracken
Meade
Mercer
Monroe
Montgomery
Morgan
Muhlenburg
Nelson
Nicholas
Ohio
Oldham
Owen
Pendleton
Perry
Pike
Pulaski
Rockcastle
Russell
Scott
Shelby
Simpson
Spencer
Todd
Trigg
Union
Warren
Washington
Wayne
Whitely
Woodford

sloping plain, the principal streets run parallel with the Ohio, and command a fine view of the opposite shore. The main street is a mile in length, compactly built, and has many fine buildings. The town has extensive manufactures, and a great commerce by the way of the river. The former comprise cottons, woolens, cotton bagging and cordage, paper, leather, engines, and machinery, &c. The annual value of mercantile transactions amounts to 30,000,000 dollars. The population exceeds 25,000. *Shelbyville*, to the east, has 1,200 inhabitants, and *Paducah*, at the mouth of the Tennessee, about the same number.

Lexington is the oldest town in the State, and was for many years the seat of government. It stands on a beautiful spot, on a branch of the Elkhorn River, in the centre of the richest tract in the State. The principal street is a mile and a quarter in length, spacious, and well paved. The buildings are much superior in size and elegance to those of the other towns in the State, and may be compared to those of the Atlantic country. The Transylvania University, and the State Lunatic Asylum are established here. The public inns are large and convenient. The town has manufactories of woolen, cotton, and paper. The general appearance of the town is neat, and the neighborhood is adorned with many handsome villas, and finely ornamented rural mansions. Population, 6,000.

Maysville, on the Ohio, a considerable distance above Louisville, occupies a narrow bottom below the mouth of Limestone Creek, which affords a harbor for boats. It is a thriving town, and enjoys both the river and inland trade. It has manufactories of glass and other articles. Population, 4,000.

Frankfort is the seat of government. It stands on the east bank of the Kentucky, 60 miles above its entrance into the Ohio, and occupies a deep valley. The State house is built of marble, taken from quarries in the deep limestone banks of the river. Here is also the State penitentiary. A chain bridge crosses the river. Vessels designed for the sea, have been built here, and floated down the river to New Orleans. Population, 2,000.

Newport and *Covington* are two small towns on the Ohio, divided by Licking River. They are directly opposite Cincinnati, and may be considered as suburbs of that city. Newport has an arsenal of the United States. These towns exhibit a beautiful appearance from the hills north of Cincinnati; they contain together about 4,000 inhabitants. *Danville* also contains the Kentucky Deaf and Dumb Asylum, and about 1,000 inhabitants. *Harrodsburg*, famed for its mineral spring, a favorite resort of the Kentuckians, has the same number of inhabitants. *Paris*, near Georgetown, is a thriving village. Population, 1,500. The Choctaw Academy at *Great Crossings*, is in this vicinity.

Bardstown, on a branch of Salt River, has a Catholic seminary, where pupils from various parts of the Western States receive instruction. *Danville*, *Augusta*, *Princeton*, and *Georgetown* have also seminaries entitled colleges.

4. *Agriculture.* Wheat, hemp, and tobacco, are the staple articles of culture. The wheat is of the finest kind. Maize is also cultivated, and cotton is raised in small quantities, for domestic use. Grapes flourish here, and there are many vineyards which produce wine. Most of the grains, pulses, and fruits of the temperate zone grow here.

5. *Commerce.* The river trade is so extensive, that it may take the name of commerce. This consists mostly of exports of flour, grain, butter, cheese, whisky, cider, fruit, pork, lard, horses and cattle, coal, and manufactured goods, to New Orleans. Steamboats are the principal craft, but there are also great numbers of flat boats navigating the river. The horses and cattle, which are reared in great numbers, are transported down the river in flat boats, or driven across the mountains to the Atlantic country.

6. *Manufactures.* The manufactures of Kentucky are of considerable value, and are daily growing in importance; the rapid increase of the cotton crop of the Southern States, has caused a corresponding demand for cotton-bagging, which is made in this State, from one of its great staples, and bale-rope and cordage are also extensively produced; upwards of 50,000 coils of bale-rope, and 70,000 pieces of cotton-bagging, have been exported from Louisville in a single year. Leather, whisky, cotton yarn, and some cotton and woolen stuffs, are also among the products of manufacturing industry; salt and iron are made, and there are some iron and brass founderies, engine and machine factories, steamboat yards, &c.

7. *Government.* The legislature is called the General Assembly, and consists of a Senate and House of Representatives. The senators are chosen for 4 years, and the representatives annually. The Governor is chosen for 4 years, and is ineligible for 7 years after the expiration of his term of office. Elections are popular, and suffrage is universal. Kentucky sends 12 representatives to Congress.

8. *Religion.* The Baptists have 300 ministers; the Methodists, 400; the Presbyterians, 100; the Catholics, 34, and the Episcopalians, 15. There are also Cumberland Presbyterians, Campbellites, Shakers, Unitarians, &c.

9. *Education.* *Transylvania University*, at Lexington, was established in 1798, and is the oldest in the western country. It has 15 instructers, and 60, or comprising the Medical College, 300 students. The *Centre College*, at Danville, was founded in 1822. It has 8 instructers, and 66 students. There is a college at Augusta, founded in 1823; another, called *Cumberland College*, at Princeton, founded in 1825; and another at Georgetown, founded in 1830. At Bardstown, is a Catholic seminary, called *St. Joseph's College*, with 15 teachers, and 130 pupils. Education is generally in a backward state. Attempts have been recently made to introduce a system of common schools into the State.

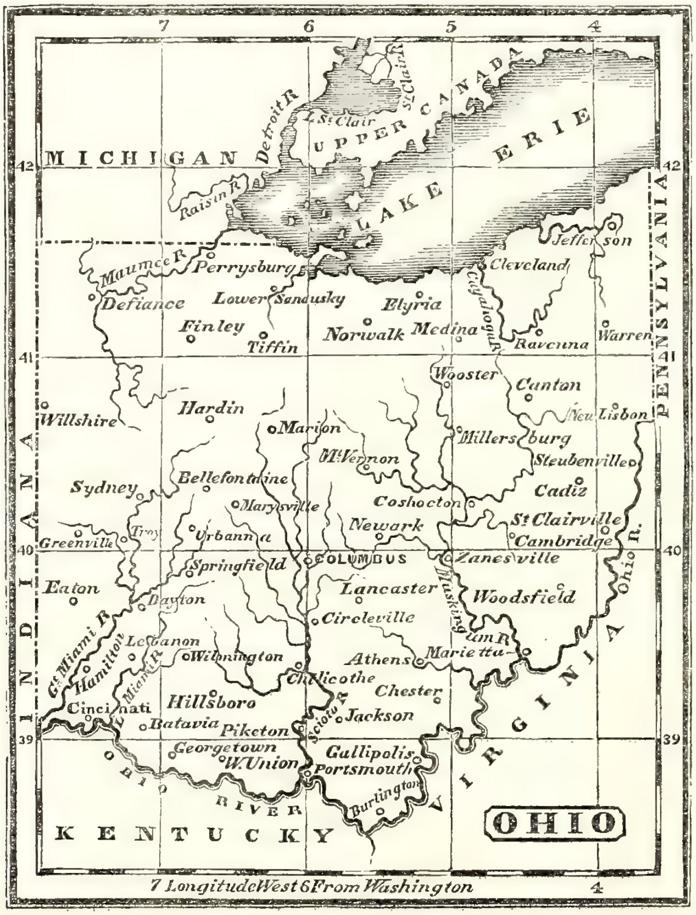
10. *History.* This State was originally a part of Virginia. The first settler within its limits was the celebrated Daniel Boone, who built a log hut, and established himself here with his family, in 1769. The town of Harrodsburg was founded in 1774; and Lexington, in 1776. A separation from Virginia took place in 1792, when Kentucky was admitted into the Union. The present constitution was formed in 1799.

CHAPTER XXX. OHIO.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* Ohio is bounded N. by Michigan and Lake Erie; E. by Pennsylvania and Virginia; S. by Virginia, and Kentucky, and W. by Indiana. It extends from 38° 30′ to 42° 20′ N. latitude, and from 80° 35′ to 84° 47′ W. longitude. It is about 220 miles in length and breadth, and contains 45,000 square miles.

2. *Rivers.* The *Ohio*, which gives name to this State, is formed by the confluence of the Alleghany and Monongahela at Pittsburg; it flows in a very serpentine course, southwesterly into the Mississippi. It is 950 miles in length, by its windings, though the distance from Pittsburg to its mouth, in a straight line, is only 614. It forms the whole southern limit of this State, and in the lower part of its course divides Kentucky from Indiana and Illinois. From Pittsburg to Cincinnati it is above a third of a mile in width. Below Cumberland River, its average width is above a mile. Its depth varies 50 feet, according to the season. The heats of the summer dry up the head streams, and the river decreases till September, when it is at its lowest stage. At this time it may be forded at the falls near Louisville.



though in every other part it is navigable for boats. Towards the end of the year it begins to rise, and in March it reaches its highest point. A sudden flood will sometimes raise it 12 feet in a single night. At Pittsburg, it is commonly frozen for several weeks in the depth of winter, and even for 400 miles below. At the breaking up of the ice, immense damage is sometimes occasioned, in the destruction of all kinds of river vessels. For about half the year, it is navigable by large steamboats through its whole course. At Louisville, is a fall or rather a rapid, which is the only obstruction of that kind from Pittsburg to the sea ; this is avoided by the canal described in the preceding chapter. The Ohio is a very beautiful stream, and was denominated by the French discoverers, *la belle rivière.* It contains more than 100 islands, and its banks are varied with rich, cultivated intervals, and bold, towering bluffs. Its current is commonly gentle, but varies from 2 to 4 miles an hour In autumn, its waters glide calmly between broad and clean sand-bars. In the spring, it rolls in full current, and inundates many of the islands between its banks.*

The *Muskingum* rises in the northeastern part of the State, and flows southerly into the Ohio. It is 200 miles in length, and is navigable for boats 100 miles. It is connected by a canal with Lake Erie. The *Scioto* rises in the western part, and flows southerly into the Ohio. It is about 200 miles in length, and is navigable 130. There are rich and beautiful prairies on this river, and its valley is wide and fertile. The Ohio canal passes along this valley, and extends northeasterly into the Muskingum. The *Great Miami* rises in the western part, and flows southerly into the Ohio ; it is above 100 miles in length, and has a rapid current, but is difficult of navigation. The *Little Miami* flows nearly parallel to the former, into the Ohio. Both these streams water a pleasant, healthy, and fertile country. The rivers of the Erie basin have a shorter course, and are more obstructed by rapids and falls. The *Maumee* rises in the northeastern part of Indiana, and flows through the northwestern part of this State into Lake Erie ; it is broad and deep, but has an obstruction, from shoals and rapids, 20 miles above its mouth. It is connected with the Miami by a canal. The *Sandusky* rises in the northern part, and flows northerly into Lake Erie ; it is 100 miles in length, and is navigable. The *Cuyahoga* is a small stream in the northeast, falling into Lake Erie. The Ohio canal passes along its valley to the lake.

3. *Bays and Harbors.* This State has above 150 miles of coast upon Lake Erie. This extent embraces several harbors. *Sandusky Bay*, in the west, is 20 miles in length, and from 3 to 4 wide ; it communicates with the lake by a narrow strait, and affords an excellent haven. *Maumee Bay*, in the northwest, a small basin, also affords a capacious and commodious harbor for ships. Several islands in Lake Erie belong to Ohio, among which is *Put in Bay Island*, with a good harbor. The harbor of Cleveland, at the outlet of the Ohio canal, and those of Ashtabula, further east, and Huron to the west, are frequented by steamboats and other lake craft.

4. *Climate.* The general temperature of the air is some degress colder than in the Atlantic regions, in the same parallel. The winters are often severe, and the Ohio has been frozen at Cincinnati, for 2 months. The summer is subject to tornadoes, but the autumn is always temperate, serene, and pleasant. Along the valley of the Ohio, the weather is more equable and mild than in the interior. In the southern part there is little snow ; in the north, the snows are deep, and there is much sleighing in the winter. Near marshy spots, and stagnant waters, fevers and agues prevail, especially among the new settlers ; but in general, the State may be pronounced healthy.

5. *Soil.* Nine tenths of the surface of this State are susceptible of cultivation. The intervals of the rivers are highly fertile. In the interior, are the largest tracts of rich level plain, in any settled portion of the United States. The prairies produce no timber except a few

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* "No river in the world rolls for 1,000 miles a current so smooth and peaceful as the Ohio. Its tributaries wind through as many valleys in 10 different States. The Tennessee, the first in size, having passed a navigable course through 3 States, for more than 1,000 miles, falls into the Ohio River 50 miles above its mouth ; the Cumberland, 62 miles, being navigable for steamboats to Nashville, and for keelboats 300 miles further; the Wabash 200 miles ; Green river 280 miles from the mouth of the Ohio, — navigable 200 miles, and 200 yards wide at the mouth ; the Kentucky 504 miles, and navigable 150 miles ; Great Miami 482 miles ; Great Kanawha 850 miles, — navigable 64 miles to the Salines, where annually are made from 500 to 700 bushels of salt ; Great Muskingum 950 miles. These are the principal auxiliaries which give substance and strength to the Ohio. In its course of more than 1,000 miles, it washes 6 States, and, with its tributaries, has more than 5,000 miles of navigable waters. Its mean width is 600 yards, with the exception of its lowest 50 miles, the average width of which is 1,000 yards. The average rapidity of its current is 3 miles an hour. It rises 50 or more feet. At low water, its surface at Cincinnati is supposed to be 130 feet below the level of Lake Erie, and 430 above the tide water of the Atlantic. Such is the Ohio."

scattered trees, and now and then a small grove. Some of them are marshy, and the more elevated are called *barrens*, yet they have often a tolerably fertile soil. The eastern and the southeastern parts are the most hilly ; but hardly any portion of the surface is sufficiently broken to be unfavorable to tillage. The marshy tracts in the north, have an excellent soil, and may be easily drained when all the other good land in the State is occupied. On the whole, Ohio may be regarded as one of the most fertile countries in the world.

6. *Geology.* We have as yet had no complete account of the geological formations of this region. Its strata are in general but little disturbed, though upliftings or downthrows are occasionally manifest ; but they are much cut through and worn away by the action of some mighty flood or floods. The surface is often strewn with numerous boulders of primary rock, so strikingly differing from the rock in place, as to have attracted the notice of the people, by whom they are called "lost rocks." The rocks of the southeastern part evidently belong to the carboniferous group, forming a continuation of the great deposits of western Pennsylvania and Virginia, and northeastern Kentucky. This series of sandstones, clay slates, and limestones, full of treasures of coal, salt, and iron-ore, appears to be terminated, toward the west, by a line drawn northwardly from the mouth of the Scioto, by Newark, towards the head of the Tuscarawas, and thence curving round to the east. The rest of the State seems to belong to the older or transition formations, although it has been represented to comprise extensive tertiary deposits.

7. *Natural Productions.* The forests produce black walnut, various species of oaks, hickory, sugar-maple, and several other sorts of maple, beech, birch, poplar, ash, sycamore, pawpaw, buckeye, cherry, dogwood, elm, hornbeam, &c. With the exception of a few cypress trees, this State produces hardly any evergreens. Many sorts of medicinal roots are to be found here, as ginseng, valerian, columbo, snakeroot, and bloodroot.

8. *Minerals.* Coal is abundant in the eastern parts, as also iron ; but there are few mines. Marble is plentiful, and salt springs are common, which furnish water nearly as strong as that of the sea. Near the falls of the Little Miami, are the Yellow Springs, the waters of which are a strong chalybeate, and in considerable esteem for their medicinal qualities. The Delaware White Sulphur Springs have the same properties as the famous White Sulphur of Virginia.

9. *Face of the Country.* This State is remarkably level, and altogether free from mountains. In the southeast, along the Ohio, are many low hills. It is remarkable, that the highest lands in the State, between the great rivers, are by far the most wet and marshy, while the driest tracts are along the banks of the rivers. In a general appearance, the country exhibits a great proportion of unbroken forest, here and there checkered with farms.

POLITICAL GEOGRAPHY.

1. *Divisions.* Ohio is divided into 76 counties.[*]

Population at different Periods.

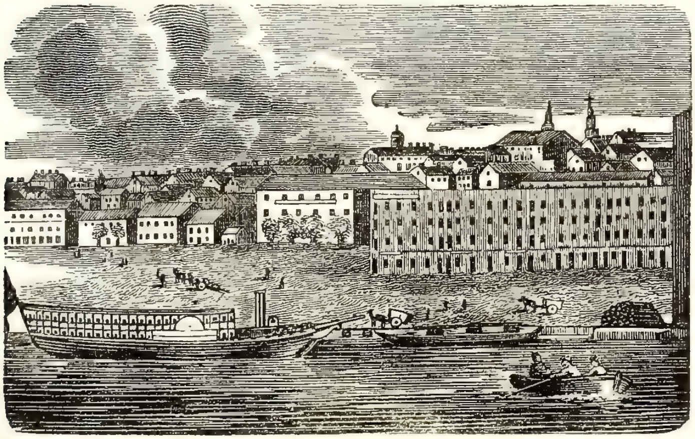
1800,	45,365	1830,	937,903
1810,	230,760	1840,	
1820,	581,434		

[*] Adams
Allen
Ashtabula
Athens
Belmont
Brown
Butler
Carroll
Champaign
Clark
Clermont
Clinton
Columbiana
Coschocton
Crawford
Cuyahoga
Dark
Delaware
Erie
Fairfield
Fayette
Franklin
Gallia
Geauga
Green
Guernsey
Harden
Hamilton
Hancock
Harrison
Henry
Highland
Hocking
Holmes
Huron
Jackson
Jefferson
Knox
Lawrence
Licking
Lorain
Logan
Lucas
Madison
Marion
Medina
Meigs
Mercer
Miami
Monroe
Montgomery
Morgan
Muskingum
Paulding
Perry
Pickaway
Pike
Portage
Preble
Putnam
Richland
Ross
Sandusky
Scioto
Seneca
Shelby
Stark
Trumbull
Tuscarawas
Union
Van Wert
Warren
Washington
Wayne
Williams
Wood

2. *Canals.* The *Ohio* or *Grand Canal* unites the Ohio with Lake Erie. Beginning at Cleveland, on the lake, it proceeds southerly along the Cuyahoga, to the portage between this stream and the Tuscarawas; here it strikes the latter stream, and passes along its valley southwesterly. It then passes off to the Scioto, and descends the valley of that river to the Ohio, at Portsmouth. It is 306 miles in length, besides a lateral cut to Columbus, of 11 miles, one to Lancaster, of 10 miles, and the Dresden cut, with slack-water navigation, of 17 miles. It has 1,250 feet of lockage. This canal was executed by the State of Ohio. It was begun in 1825 and completed in 1832, at a cost of 4,500,000 dollars. The *Walhonding Canal*, from Roscoe up the Walhonding, 23 miles, from Athens to Lancaster, 50 miles, are branches of this great work.

The *Miami Canal* extends from the Ohio at Cincinnati to Defiance, on the Wabash and Erie Canal, 180 miles, with a branch from Middletown to Lebanon, called the *Warren Canal*, 20 miles in length. The *Wabash and Erie Canal* connects Lake Erie and the Mississippi, through the valleys of the Maumee and Wabash, and has been constructed by Ohio and Indiana; the portion within the former extends from its western boundary to Manhattan on the Maumee, 87 miles; below the junction with the Miami Canal, it is 60 feet wide and 6 feet deep. The *White Water Canal*, from Cincinnati to the White Water, at Harrisonburg, 25 miles, connects Cincinnati with the great Indiana works. The *Mahoning* or *Pennsylvania and Ohio Canal*, extending from the Ohio Canal, at Akron, down the Mahoning to its mouth in Pennsylvania, is 90 miles in length. The *Sandy and Beaver Canal*, extending from Bolivar, on the Ohio Canal, by the valleys of the Sandy and Beaver rivers to the mouth of the latter, 76 miles. Both of these works unite the great lines of canals of the two States, and give to Ohio a shorter route to the Atlantic waters. The total length of canals completed in Ohio, is upwards of 800 miles.

3. *Railroads.* The comparative cheapness of canals, the advantageous position of the leading rivers, and the bulkiness of the articles to be transported, have combined to give them the preference over railroads in Ohio. Several important works of the latter class have, however, been executed or commenced. The *Mad River Railroad* connects the Miami, at Dayton, with Lake Erie, at Sandusky City, through the valleys of the Mad River and the Sandusky, 153 miles in length. The *Sandusky and Monroeville Railroad* extends from Sandusky City to the latter village, 15 miles. The *Toledo and Kalamazoo Railroad* is chiefly in Michigan, and was constructed before the strip which contains Toledo was attached to Ohio. The *Little Miami Railroad* extends from Cincinnati to Springfield, 70 miles. The *Cleveland, Warren, and Pittsburg Railroad* is a projected work, the execution of which would form a new connexion between Lake Erie and the Atlantic, through the Pennsylvania public works.



Cincinnati.

4. *Cities and Towns.* *Cincinnati*, the largest city in Ohio, and indeed in all the western country, stands on the northern bank of the Ohio, near the southwestern corner of the State. Its site is the eastern part of an alluvial tract, bounded on the north by a ridge of hills. This plain contains about 4 square miles, and consists of two different levels, one about 50 feet higher than the other. The city rises gradually from the river, but does not make a very bold or striking appearance. It is built with perfect regularity, on the plan of Philadelphia. The principal streets are 66 feet in width. The central part is very compact, yet the whole outline of the city is but partially filled up, and many of the buildings are scattered irregularly about. The public edifices are of stone or brick, and most of the stores and houses are of brick. The whole aspect of the city produces a most agreeable impression on the eye of the stranger. Here are 30 churches, a lunatic asylum, hospital, theatre, the halls of Cincin-

cinnati College, &c. There are 30 newspapers and other periodicals published here, and 20 public or free schools are attended by 2,000 pupils. The manufactures are extensive and various, including iron-ware, machinery, paper, printed books, leather, furniture, &c. There are upwards of 50 steam-engines at work in the city, and there have been made here in one year, 300 cotton-gins and sugar-mills, and 100 steam-engines ; the steamboat-yards are numerous, and from 35 to 40 steamboats are built annually. The whole annual value of the manufactures is about 12,000,000 dollars. The trade is very great, both on the river and the canal, and large quantities of flour, pork, whisky, and manufactured articles are exported. Cincinnati is the greatest pork market in the world, and upwards of 150,000 hogs are annually slaughtered here. The markets of the city are well supplied, and are not surpassed for cheapness anywhere in the country. Water is furnished from the river by steam machinery. Cincinnati occupies the site of old Fort Washington, and the outlines of the city were marked in 1789. The first settlers were principally from New England and New Jersey. Since the peace of 1814, the city has augmented with wonderful rapidity, and now contains a population of 40,000 souls.

The city of *Columbus*, on the Scioto, is the seat of government. It is situated to the southwest of the centre of the State, and occupies a pleasant acclivity. It was founded in 1812, in the midst of a thick forest. It contains a State-house, penitentiary, an institution for the blind, a lunatic hospital, and an asylum for the deaf and dumb, all established by the State. Population, 5,000.

Zanesville, on the Muskingum, a little below the falls of the river, contains many mills and manufactories, including woolen and cotton mills, iron and brass founderies, paper and flour mills, glass works, machine-shops, &c. Here are 2 bridges across the river. The great national road, from Cumberland through the Western States, passes through this town. Population, including the adjoining villages of West Zanesville and Putnam, 7,000.

Steubenville, on the Ohio, in the eastern part of the State, was founded in 1798, and incorporated as a city in 1805. It has manufactures of woolen, cotton, paper, iron founderies, tanneries, &c. and a flourishing commerce. Population, 4,000. *Chillicothe*, on the Scioto, midway between Columbus and the Ohio, was formerly the seat of government. The situation is pleasant, and the plan of the town is regular. In the centre stood a huge Indian mound, which was demolished, and the site converted into building lots. Considerable manufacturing is carried on here, and its trade, by the canal, is extensive. Population, 4,000. *Dayton*, on the Great Miami, at the junction of the canal with that river, is a flourishing place with many factories and mills. Population, 3,800. *Marietta*, at the mouth of the Muskingum, has a beautiful situation, and is the oldest town in the State ; it was settled in 1788, but is not at present a flourishing place. Some of the streets of the town are annually flooded by the river. Population, 1,500. *Circleville*, on the Scioto, below Columbus, is built on the site of an ancient circular fortification. It is surrounded by a fertile country, and the Ohio canal passes by the town. Population, 2,000.

Cleveland, at the mouth of the Cuyahoga, is the most important of the lake ports in Ohio. It stands on a high plain, the streets are regular and spacious, and the harbor is commodious and safe, protected by stone jetties about 1,200 feet in length. Here is also the spacious canal basin of the Ohio canal. The city has grown in population, trade, and wealth, with surprising rapidity ; its population is 6,000, or, including the village of Ohio City, 8,600 ; the exports exceed, in value, 3½ millions annually. This part of Ohio is called New Connecticut, or the Western Reserve, because it was reserved by Connecticut, when that State ceded to the general government her claims to the western lands. *Huron*, *Norwalk*, and *Sandusky City*, are also flourishing towns in this section. *Toledo*, on Maumee Bay, is a growing place in a very commanding situation, being at the common outlet of 2 great canals into the lake. Population, 2,500. *Portsmouth*, at the southern terminus of the Ohio canal, *Athens*, on the Hocking, and *Hamilton*, on the Miami, are likewise flourishing towns, with about the same number of inhabitants.

5. *Agriculture*. Maize is the chief article of culture, and in some parts 110 bushels have been raised upon an acre ; though 50 bushels may be considered an average crop. The soil is well fitted for wheat, rye, barley, oats, spelt, and buckwheat, all which are cultivated. Fruits are abundant, and the soil is thought to be the best for garden vegetables of any in the western country. Tobacco has been lately introduced. Hemp is cultivated in some parts. Swine are one of the staple productions, and the farmers having lately turned their attention to sheep-

breeding, wool has become an important item. The number of sheep owned in the State exceeds 2,000,000. The number of horned cattle is about 500,000.

6. *Commerce.* The advantages for trade which are secured by the local position of this State may be perceived by glancing at the map. The Ohio affords it a direct intercourse with all the country in the valley of the Mississippi ; while, by means of Lake Erie on the north, it communicates with Canada and New York. The Ohio canal completes a line of internal navigation from New York to New Orleans, through this State. Ohio enjoys the most active commerce of all the Western States. The northern and eastern countries export to Montreal and New York by the lake, great quantities of agricultural produce. But the chief of the exports are to New Orleans. The articles are flour, grain, pork, bacon, lard, whisky, horses, cattle, and manufactures.

7. *Manufactures.* The domestic fabrics are considerable, and there are some large manufactories of woolen, cotton, paper, &c., at places already indicated. The manufacture of steam machinery, and other articles from iron, is considerable. To these may be added linseed and castor oil, whisky, cabinet furniture, salt, glass, hats, &c.

8. *Government.* The legislature is called the General Assembly, and consists of a Senate and House of Representatives. The senators are chosen for 2 years, and the representatives for one. The Governor is chosen for 2 years. Suffrage is universal, and elections are popular. Ohio sends 19 representatives to Congress.

9. *Religion.* The Presbyterians have 230 ministers ; the Baptists, 170 ; the Methodists, 200 ; the Lutherans, 60 ; the Associate Presbyterians, 10 ; the Associate Reformed, 25 ; the German Reformed, 30 ; the Episcopalians, 25 ; the Swedenborgians, 4 ; there are also some Catholics, Unitarians, Universalists, Quakers, and Shakers. The singular sect known as Latter Day Saints or Mormons, have a Mormon Temple at Kirkland.

10. *Education.* The *University of Ohio*, at Athens, was founded in 1802 ; it has 6 instructers, and 50 students. *Miami University*, at Oxford, was established in 1824. It has 11 instructers, and 90 students. The *Western Reserve College*, at Hudson, was established in 1826. It has 8 instructers, and 50 students. *Kenyon College*, at Gambier, was established in 1828. It has 6 instructers, and 150 students. *Franklin College*, at New Athens, was established in 1824. It has 6 instructers, and 80 students. The *Granville College*, at Granville, the *Marietta College*, at Marietta, the *Cincinnati College*, at Cincinnati, are also among the higher seminaries. The last named has 8 teachers, and 90 students. Common schools were established by the legislature in 1825. The University of Ohio is endowed with 2 townships of land, and the Miami University with 1. There are about 20 incorporated academies in the State, but few of them have any permanent funds for their support, and they are not all in constant operation.

11. *History.* This State was first settled under the auspices of a company of revolutionary officers and soldiers, called the Ohio Company, to whom the continental Congress made a grant of a million and a half acres of land, to the northwest of the Ohio. This company was organized at Boston, in March, 1786. The first permanent settlement was made by a band of 47 emigrants from the counties of Essex and Middlesex in Massachusetts, and the States of Rhode Island and Connecticut. These persons founded Marietta on the 7th of April, 1788. Another settlement was made the following year at Columbia on the Ohio, 6 miles above the spot where Cincinnati now stands, by a company from New York, New Jersey, and Pennsylvania. A number of French emigrants settled at Gallipolis in 1791. A territorial government was established by Congress over this region in 1781, under the title of the Territory Northwest of the Ohio. The country was much annoyed by Indian hostilities, and after the disastrous campaign of General St. Clair, many of the inhabitants removed to Kentucky. But the savages were effectually subdued by General Wayne, in 1795, and from this period may be dated that unexampled prosperity which has distinguished Ohio among all the Western States. The fame of this region, for richness of soil and amenity of climate, drew multitudes of adventurers from the Atlantic country, and in 1802 it was erected into a State, and admitted into the Union. It has continued progressively to advance in population, wealth, and industry, and exhibits the most striking instance of the rapid progress of social improvement, which any age or country can boast.

CHAPTER XXXI. INDIANA.

PHYSICAL GEOGRAPHY.

1. ***Boundaries and Extent.*** This State is bounded N. by the lake and State of Michigan, E. by Ohio; S. by Kentucky; and W. by Illinois. It extends from 37° 45′ to 41° 50′ N. latitude, and from 84° 42′ to 87° 49′ W. longitude. It is 250 miles in length, from north to south, 150 in breadth, and contains 36,000 square miles.

2. ***Rivers.*** The ***Ohio*** washes the southern limit of the State. The ***Wabash*** rises in the northeastern part, and flows southwest nearly across the State, when it turns to the south, and flows into the Ohio, forming towards its mouth the western boundary. It is 500 miles in length, and is navigable for keel-boats to within 100 miles of its source, where there are rapids; above this point, small boats may ascend to the source of the river. The *Little Wabash*, ***Eel River***, ***White River***, and ***Tippecanoe River***, are branches of the Wabash. The Tippecanoe is celebrated for a battle fought upon its banks, in 1811, between the United States troops and the Indians. ***White Water River***, in the eastern part of the State, flows southerly to the ***Great Miami***, a few miles above its mouth; its waters are remarkably cold and transparent. The ***St. Joseph of the Lake*** passes into Michigan, the ***St. Joseph of the Maumee*** into Ohio, and the ***Kankakee*** into Illinois.

3. *Climate.* On the borders of Lake Michigan, heavy rains are common, and the climate is considered unhealthy. In the other parts, this State does not differ from Ohio. In the middle and southern parts, there is seldom more than 6 inches depth of snow; but in the north, there is sometimes a foot and a half. Peach trees blossom early in March; the forests are in leaf early in April. There are vast quantities of flowering shrubs, which put forth their blossoms before they are in leaf, and give an indescribable charm to the early spring. Frosts often do great injury to the vegetation, both in spring and autumn. The winter is seldom longer than 6 weeks.

4. *Soil.* This State is generally level and fertile. All the rivers have uncommonly wide alluvial borders. The prairies along the Wabash are celebrated for their richness and beauty. Many of the prairies and intervals are too rich for wheat. In the northern part, are swampy tracts, which are too wet for cultivation; but, in general, a better country could hardly be desired for all the purposes of agriculture.

5. *Minerals.* Iron, native copper, and coal, have been found in this State, and there are salt springs in some parts; yet the mineral productions are, on the whole, inconsiderable.

6. *Caves.* There are great numbers of caves in this State; some of them have been explored, but the most of them are very little known. On the bank of Big Blue River, a small stream falling into the Ohio, is the ***Epsom Salts Cave.*** The entrance is in the side of a hill 400 feet in height. About a mile and a half within the cave, is a white column, 15 feet in diameter, and 30 feet high, regularly fluted from top to bottom, and surrounded by smaller columns of the same shape and appearance. These pillars are described as satin spar. The whole floor of the cave is covered with Epsom salt, sometimes in lumps of 10 pounds' weight, and of the purest quality. The earth taken from the ground yields from 4 to 25 pounds of this salt to the bushel. The cave also contains saltpetre, aluminous earth, and gypsum. The rock is limestone. On one of the walls is a rude painting of an Indian with a bow.

7. *Face of the Country.* The southern border of the State is skirted by a range of hills and bluffs, sometimes washed by the Ohio, and at other times receding 2 or 3 miles from the stream. They are called the Ohio Hills, and are seldom above 300 feet in height. In some other quarters, the country is hilly and broken, yet the whole State may be called level. Some of the prairies are too extensive to be measured by the eye, and, wherever streams cross them, they are marked by belts of timbered land. There are hundreds of prairies only large enough for a few farms each. In the more extensive ones, there often occur oases of woody land, which give a striking beauty to the landscape of these western wilds. The northern part is an extensive table-land, nearly level, and containing numerous marshes and lakes.

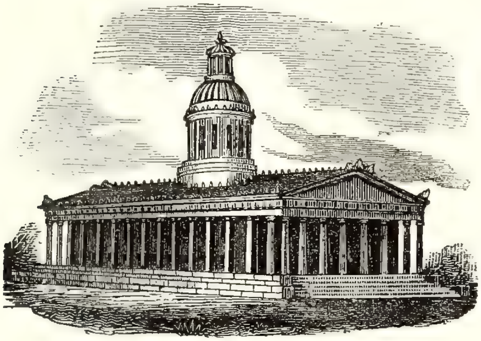
POLITICAL GEOGRAPHY.

1. *Divisions.* Indiana is divided into 87 counties.*

Population at different Periods.

1800,	2,640	1830,	343,031
1810,	24,520	1838,	(Est.) 700,000
1820,	147,178		

2. *Towns.* *Indianapolis,* the seat of government, is situated on White River, in the centre of the State. A few years ago, the spot was a dense forest. It has now about 2,500 inhabitants, and many large brick buildings, manufactories, shops, &c. The river is navigable to this place by steamboats, in common stages of the water. The land surrounding the town is uncommonly fertile.


Capitol at Indianapolis.

Vincennes is one of the oldest towns in the Western States. It was settled by the French, from Canada, early in the last century. It is situated on the Wabash, 150 miles above its mouth, and is accessible for the greater part of the year by steamboats. It has considerable trade, and of late years has been improving. A large and beautiful prairie adjoins the town, 5,000 acres of which are cultivated in common by the inhabitants, after the ancient French custom. Vincennes was formerly the seat of the territorial government. It has about 2,000 inhabitants.

New Albany, on the Ohio, a short distance below Louisville in Kentucky, has a considerable trade by means of the river, and there are many steamboats built here. It is the largest town in the State, and contains a population of about 4,000.

Jeffersonville, on the Ohio, just above the falls, is a handsome village, and enjoys a beautiful prospect of the foaming rapids in the river, and the richly-wooded banks, and the town of Louisville opposite. Population, 1,500. Here is the State prison. *Vevay*, on the Ohio, in the southeastern corner of the State, was settled in 1804, by 30 Swiss families, to whom the United States made a grant of a large tract of land, with a view to introduce the cultivation of the vine. Here are the largest vineyards in the United States. The inhabitants also manufacture straw bonnets, and some other articles. *Madison*, on the Ohio, midway between Cincinnati and Louisville, is a pleasant and flourishing town, not inferior in trade, business, and population, to New Albany. Population, 4,000. *Corydon*, near the Ohio, was formerly the seat of government, but is an inconsiderable place.

Harmony, on the Wabash, near the southwestern corner of the State, is a noted place,

[*] Adams
Allen
Bartholomew
Blackford
Boone
Brown
Carroll
Cass
Clark
Clay
Clinton
Crawford
Davies
Dearborn
Decatur
Dekalb
Delaware
Dubois
Elkhart
Fayette
Floyd
Fountain
Franklin
Fulton
Gibson
Grant
Greene
Hamilton
Hancock
Harrison
Hendricks
Huntington
Henry
Jackson
Jasper
Jay
Jefferson
Jennings
Johnson
Knox
Kosciusko
Lake
Laporte
Lagrange
Lawrence
Madison
Marion
Marshall
Martin
Miami
Monroe
Montgomery
Morgan
Newton
Noble
Orange
Owen
Parke
Perry
Posey
Porter
Pulaski
Putnam
Randolph
Ripley
Rush
St. Joseph
Scott
Shelby
Spencer
Stark
Steuben
Sullivan
Switzerland
Tippecanoe
Union
Vanderburg
Vermilion
Vigo
Wabash
Warren
Warrick
Washington
Wayne
Wells
White
Whitley

though now decayed. It was settled in 1804, by the Germans, under Rapp, who subsequently sold the establishment, and removed to Economy, in Pennsylvania, as we have related at page 267. The lands and village of Harmony were purchased by Robert Owen of New Lanark, in Scotland, who attempted to establish here a community upon the co-operative system, but this has been abandoned.

Lawrenceburg on the Ohio, just below the mouth of the Miami, has an advantageous situation for trade, and is in a prosperous condition. Population, 1,800. *Evansville* derives importance from its being the southern terminus of the great series of canals, now constructing across the whole length of the State. *Terre Haute* is a new and flourishing village, which takes its name from its situation on an elevated bank of the Wabash. *Logansport* and *Lafayette* are the most important towns higher up. *Fort Wayne*, at the head of the Maumee, and at the junction of the Wabash and Erie Canal with that river, has been created by that work. These towns have from 1,800 to 2,000 inhabitants. On Lake Michigan, the only town of importance is *Michigan City*, which has grown up in the wilderness within a few years ; it stands at the end of the Northern Canal, and its trade, already considerable, will be much increased by the completion of that work. Population, 2,500.

3. *Canals.* Indiana has adopted a system of canals, embracing all of the great rivers of the State, which become unserviceable by the lowness of the water during a part of the year. In 1836 the legislature directed the execution of a series of works, and authorized the raising of a loan of 10,000,000 dollars, for that object. The *Wabash and Erie Canal*, one of the most important of the great works in the country, extends from Terre Haute to the intersection of the Ohio line by the Maumee, whence it is continued to Maumee Bay, by the State of Ohio ; length of the Indiana section, 195 miles ; of the Ohio section, 87 miles. The *Central Canal*, from Indianapolis down the valley of the White River to Petersburg, and thence by the Big Pigeon Creek to Evansville, 190 miles, is in progress ; the northern prolongation of this canal will extend from Indianapolis to a point on the Wabash and Erie Canal near Peru, a distance of about 120 miles. The *Cross Cut Canal* extends from Terre Haute to the Central Canal, near the mouth of Eel River, 40 miles, and renders the communication between the Ohio and Lake Erie complete, should the northern section of the Central Canal not be executed. The *Whitewater Canal*, in progress, will extend from Cambridge City on the National Road, down the valley of the Whitewater River to Lawrenceburg, on the Ohio, 76 miles. In connexion with Illinois, Indiana has also undertaken to remove the obstructions to the navigation of the Wabash, above the mouth of the White River ; the bed of the river is here filled with rocks, bars, and islands, rendering the channel crooked and intricate, and at low water too shallow to be passed even by the river boats. The *Northern Canal* will extend from Michigan City, on Lake Michigan, through Valparaiso, South Bend, and Elkhart, to Fort Wayne, on the Wabash and Erie Canal, 160 miles.

4. *Railroads, &c.* In connexion with these lines of canals, the State has also undertaken the construction of several great overland routes of intercommunication, consisting in part of roads made on the principle of Macadam, and in part of railroads, and has given its aid to some private undertakings. The *Madison and Lafayette Railroad*, from Madison on the Ohio, through Indianapolis and Crawfordsville, to Lafayette on the Wabash Canal, 160 miles, and the *Jeffersonville and Indianapolis Railroad*, from the Ohio at the former place, to intersect the Madison road, at Columbus, are in progress. The portion of the road between Indianapolis and Lafayette is constructing on Macadam's plan. From New Albany to Vincennes, the State is also constructing a Macadamised road 104 miles long. The *Lawrenceburg and Indianapolis Railroad* is in process of construction by a company, which has received assistance from the State ; length 90 miles. The *Michigan and Laporte Railroad* extends from Michigan City to Laporte, 12 miles, and is to be continued to Southbend, on the St. Joseph's, 28 miles further.

5. *Agriculture, &c.* The industry of this State is almost exclusively agricultural ; beef, pork, bacon, cattle, horses, swine, wheat, Indian corn, hemp, tobacco, &c., are largely exported, but we have no data for estimating the total amount produced, or the surplus for exportation. Ginseng, bees'-wax, feathers, whisky, are also exported. Manufactures can hardly be said to exist, except in the form of household cottons and woolens ; there are, however, some distilleries, a few iron-furnaces and salt-works, tan-yards, saw and grist mills, and glass-works. The abundance of fuel and the inexhaustible water-falls of the streams, offer great facilities for the establishment of manufactories, and rich stores of coal, iron-ore, salt-

springs, lime, gypsum, good marbles, freestones, and grindstones are known to exist, although little attention has yet been paid to these sources of wealth.

6. *Government.* The legislature is called the General Assembly, and consists of a Senate and House of Representatives. The senators are chosen for 3 years, and the representatives yearly ; one third of the senators are renewed annually. The Governor is chosen for 3 years, and may be once re-elected. Elections are popular, and suffrage is universal. The State sends 7 representatives to Congress.

7. *Religion.* The Baptists have 200 ministers ; the Methodists, 220 ; the Presbyterians, 70, and the Roman Catholics, 6. There also are Friends, Episcopalians, Lutherans, &c.

8. *Education.* *Indiana College*, at Bloomington, founded in 1827, has 6 instructers, and 120 students. *South Hanover College*, at South Hanover, has the same number, and *Wabash College*, at Crawfordsville, nearly as many. *Ashbury University*, at Greencastle, and *Vincennes University*, are respectable schools. Popular education is provided for by the constitution of this State, but it has not yet received much attention.

9. *History.* The French from Canada explored this country, and settled Vincennes in the early part of the last century. The settlers were soldiers of Louis the Fourteenth. For more than an age, they lived in a state of seclusion, almost separated from the rest of the world, and partially assimilated with the savages. By the treaty of 1763 between France and England, this region came into the possession of the English, although the change was merely nominal, and no additional settlements were made in the country. In the revolutionary war, the French at Vincennes manifested so favorable a disposition toward the American cause, that the government made them a grant of land in the neighborhood of the town, at the end of the war. In 1800, Indiana was placed under a territorial government, and about this time new settlements were formed. The Indians committed various hostilities from time to time upon the frontiers, and in 1811, at the instigation of the British, who furnished them with arms and ammunition, one of their leaders, called the Shawnee prophet, collected a numerous body, and made such devastations that the United States government despatched an armed force against them. In November 1811, the troops marched into the Indian country, and encamped near the Prophet's town, at Tippecanoe, where the savages had collected an army of 600 warriors. General Harrison, the American commander, proposed a negotiation ; the Indians accepted it with every protestation of friendship, and agreed to hold a council the next day. The Prophet, at night, consulted his "grand medicine," and declared to his followers, that "the enemy was now in their power, fast asleep, and should never wake." Before the dawn of day, the Indians burst into the American camp with horrid shouts, and a fierce engagement succeeded, amid the confusion of darkness and the yells of the war whoop. The militia fled, but were soon rallied. The troops formed a solid column, and charged the savages at the point of the bayonet. They were soon driven from the field and routed, but nearly 200 Americans fell in the battle. The Prophet's town was then set on fire. This severe blow put an end to the incursions of the savages for a time ; but during the war of 1812, they joined the British, and were troublesome to the frontier towns of this, and the neighboring States. Indiana was admitted into the Union in 1816.

CHAPTER XXXII. ILLINOIS.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* This State is bounded N. by Wisconsin ; E. by Lake Michigan and Indiana ; S. by Kentucky, and W. by Missouri and Iowa. It extends from 37° to 42° 30′ N. latitude, and from 87° 17′ to 91° 15′ W. longitude. It is 380 miles in length, and 160 in mean breadth, and contains 59,000 square miles.

2. *Rivers.* The *Mississippi* forms the boundary of this State on the west. The *Illinois* rises near Lake Michigan, and flows west and south to the Mississippi. It is above 400 miles in length, and is navigable by boats nearly to its source. About 200 miles above its mouth, the river widens so as to form a lake 20 miles long and 2 in width, called Peoria Lake. This is a beautiful sheet of water surrounded by prairies ; it is very deep, and the current of the river through it is not perceptible. One of the head streams of the Illinois rises within 10 miles of Lake Michigan. Here is a morass, which at certain seasons discharges its waters into the Illinois in one direction, and into the Chicago which falls into the lake, on the other

Boats of 5 tons' burden have passed through from the Illinois to the lake. The rocky shores of the lake everywhere exhibit evidence that its waters have considerably lowered, and there is little doubt that it was formerly drained by the branches of the Illinois. *Rock River* rises beyond the northern limit of the State, and flows southwest to the Mississippi; it is 300 miles in length. The *Kaskaskia* rises a little east of the interior of the State, and flows southwest into the Mississippi; it is 250 miles in length, and is navigable for boats. The *Wabash* forms a part of the eastern boundary, and receives from this State the *Little Wabash* 130 miles in length.

3. *Climate.* The winters are severe over the whole State; the rivers are frozen over for several months in the year, and the winds from the northerly points, coming from the lakes or from the great central table-land of North America, are very cold. The air is in general dry, pure, and healthy, but there are many spots which are rendered sickly by pestilential exhalations.

4. *Soil.* Three different qualities of soil may be distinguished in a general description. First, the alluvial borders of the rivers, which are from 1 to 8 miles wide, sometimes elevated, and at others low and subject to inundation. These consist of alternations of wood and prairie, and have almost always a fertile soil. Second, between the alluvion and the bluffs which bound them, are level tracts from 50 to 100 feet high. These consist mostly of prairie, either dry or marshy, and are less fertile than the alluvions, but are commonly preferred by emigrants. Third, the interior, which consists of an intermixture of woods and prairies; here the soil is various, and the surface waving or broken. One sixth of the bottom or alluvial land, is overflowed for a longer or shorter time by the rivers, and is thereby rendered unfit for cultivation, although it is productive in timber. There is a tract called the American Bottom, beginning at the mouth of the Kaskaskia, and extending along the Mississippi, to the bluffs at Alton; it is 90 miles in length, and 5 in average width, and consists of soil 25 feet deep, as rich as can be found in the world. About the French towns it has been cultivated, and produced maize every year without manuring, for above a century. In the north there are tracts somewhat stony, yet in every other part the plough may pass over millions of acres without meeting so much as a pebble to impede its course.

5. *Minerals.* Iron is found in different parts of the State. Native copper, in small quantities, has also been met with. The chief mineral production, however, is lead. Here are the richest lead mines in the world. The district which furnishes the ore, lies in the northwest part, and extends beyond the limits of the State. It comprises a tract of above 200 miles in extent. The ore is inexhaustible. It lies in beds or horizontal strata, varying in thickness from 1 inch to several feet, and yields 75 per cent of pure lead. For many years the Indians and hunters were accustomed to dig for the metal; they never penetrated much below the surface, but obtained great quantities of the ore, which they sold to the traders. The public attention was drawn to this quarter, and from 1826 to 1828, the country was filled with miners, smelters, merchants, speculators, and adventurers. Vast quantities of lead were manufactured, the business was overdone, and the markets nearly destroyed. The business has since revived, and from 8 to 10 million pounds of lead are annually made at the mines. The principal mines are in the neighborhood of Galena. The whole State abounds in coal. It appears above the surface in the ravines and gullies, and in the points of bluffs. There is scarcely a county in the State, unable to furnish it in large quantities. Limestone and sandstone occur in every part. Salt springs are common, but they are generally neglected.

6. *Face of the Country.* This is one of the most level States in the Union. The greater part consists of vast plains, or barrens, gently undulating. One may travel across immense prairies for many days, without meeting with an eminence worthy to be called a hill. The banks of the Mississippi exhibit lofty bluffs, and near the Ohio, is a range of hills of moderate height.

POLITICAL GEOGRAPHY.

1. *Divisions.* This State is divided into 87 counties.*

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* Adams
Alexander
Bond
Boone
Brown
Bureau
Calhoun
Carroll
Cass
Champaign
Clark
Clay
Clinton
Coles
Cook
Crawford
Dane
Dekalb
Dewitt
Dupage

Population at different Periods

1800	2,239	1830	157,445
1810	12,282	1835	272,427
1820	55,511		

2. *Canals.* In 1837 the legislature established a Board of Fund Commissioners to manage the fiscal concerns of the public works, and a Board of Public works, to determine the routes and superintend the execution of such works. The Internal Improvement Fund consists chiefly of loans raised for the purpose, and of the proceeds arising from the sales of lands given by Congress to aid the object. The *Michigan and Illinois Canal* extends from near Peru, below the Lower Rapids of the Illinois, up the valley of that river and the Desplaines, and across the portage between the latter and the lake to Canal Port, on the south branch of the Chicago, 5 miles from its mouth ; length, 96 miles, depth, 6 feet, width at the top, 60 feet ; estimated cost, 8,654,337 dollars ; a navigable feeder of 4 miles, to the Rapids of Fox River, making the whole length 100 miles, is included in this estimate. A branch through the Sauganaska Swamp to the River Calumet, and thence to the Northern Canal in Indiana, is also projected. The improvement of the channel of the Wabash, in connexion with Indiana, and the removal of obstructions in the beds of the Illinois, Rock River, Kaskaskia, and Little Wabash, have likewise been undertaken by direction of the State. The other public works are railroads.

3. *Railroads.* By the act of 1837, already referred to, the following railroads were directed to be undertaken ; 1. The *Central Railroad* to extend from the city of Cairo at the junction of the Ohio and the Mississippi, through Vandalia, and Shelbyville, intersecting the Illinois River, at the southern termination of the Michigan Canal, to Galena, about 460 miles ; 2. The *South Cross Railroad* from Alton, through Edwardsville, and Salem, to Mount Carmel, with a second route diverging at Edwardsville, and extending through Nashville, and Frankfort to Shawneetown, and a branch from Lebanon, on the latter, to Belleville ; whole length about 320 miles ; 3. The *Northern Cross Railroad*, extending from Quincy through Meredosia, Springfield, and Decatur, to the State line in the direction of Lafayette, Indiana, 220 miles ; 4. The *Alton and Terre Haute Railroad*, from Alton through Shelbyville and Paris to the State line, in the direction of Terre Haute, 160 miles ; 5. The *Warsaw and Bloomington Railroad*, extending from Warsaw on the Mississippi, through Peoria to Bloomington, with a branch from Mackinaw to Pekin on the Illinois ; whole length about 160 miles. The railroads undertaken by individual enterprise, are the *Chicago and Desplaines Railroad*, 12 miles in length, a continuation of which to Galena is projected ; the *Jacksonville and Augusta Railroad*, from the former place to the Illinois, opposite the latter, 24 miles ; and the *Rushville Railroad*, from that town to the Illinois at Erie, 10 miles.

4. *Towns.* *Vandalia*, formerly the seat of government, stands on the Kaskaskia, somewhat south of the centre of the State, and upon the great national road. It has been founded but a few years, and has about 1,000 inhabitants *Kaskaskia*, on the river of that name, near the Mississippi, is the oldest settlement in the whole western country, and was founded by the French, shortly after the first visit of La Salle, in 1683. While the French held possession of the country, Kaskaskia was a populous town, and the seat of government. In 1721 it contained a college of Jesuits. After the war of the Revolution it declined, but lately it has begun to revive. *Cahokia* is another ancient French settlement on the Mississippi,

Edgar
Edwards
Effingham
Fayette
Franklin
Fulton
Gallatin
Greene
Hamilton
Hancock
Hardin
Henry
Iroquois
Jackson
Jasper
Jefferson
Jersey
Jo. Davies
Johnson
Kane
Knox
Lake
Lasalle
Lawrence
Lee
Livingston
Logan
Macaupin
McDonough
McLean
McHenry
Macon
Madison
Marion
Marshall
Menard
Mercer
Monroe
Montgomery
Morgan
Ogle
Peoria
Perry
Pike
Pope
Putnam
Randolph
Rock Island
Sangamon
Schuyler
Scott
Shelby
St. Clair
Stark
Stephenson
Tazewell
Union
Vermilion
Wabash
Warren
Washington
Wayne
White
Whiteside
Will
Williamson
Winnebago

it is nearly as old as Kaskaskia. *Shawneetown*, on the Ohio, is the largest place in this State, upon the river. It has about 1,000 inhabitants. *Galena*, in the northwest, on the Mississippi, is the centre of a lead-mining district.

Springfield, a busy and flourishing town, in the centre of the State, has lately been made the capital; it stands on the borders of a beautiful prairie, in the midst of a highly fertile tract, and is the most important interior town in the State. Population, 2,500. *Jacksonville*, with nearly as many inhabitants, is a thriving village in the vicinity. *Peoria* and *Peru*, on the upper Illinois, are becoming important centres of business.

But the two largest towns, and the commercial depots of the northern and southern parts of the State respectively, are *Alton* and *Chicago*, the former in the southwest, on the Mississippi, the latter in the northeast, on Lake Michigan. Chicago is pleasantly situated at the mouth of the river of the same name, and at the point where the chain of great lakes approaches nearest to the Mississippi, and has become the great mart of Illinois; having easy communication with the Atlantic at New York and Quebec, and with the Mississippi by the canal and the Illinois, it is the great thoroughfare for northwestern travel, and the chief depot for imported merchandise. In 1830 there were but a few huts here, and at present the population exceeds 6,000. Annual value of imports, about 3,500,000 dollars. Alton stands on the bluffs, at the head of the American bottom, between the mouths of the Illinois and Missouri, and commands the trade of an extensive and growing population. The town consists of two distinct villages, Upper and Lower Alton, and contains a college, penitentiary, theological seminary, numerous manufactories, &c. Population, 4,000. *Quincy* is the principal town on the Mississippi above Alton. Population, 2,000.

5. *Agriculture.* Agriculture, as might be expected in a new country, with a scattered population and a teeming soil, absorbs almost entirely the attention of the inhabitants. Indian corn, or maize, is the staple product of the State, and the average crop is about 50 bushels to the acre. Wheat is also raised in large quantities, and yields flour of a superior quality, which is highly esteemed in the New Orleans market; oats, rye, and buckwheat, are found to thrive. Hemp, flax, cotton, and tobacco, are also raised, and the castor-oil-bean is successfully cultivated. Large herds of horned cattle, and droves of horses and mules, are raised and kept with little trouble, and great numbers are driven out of the State on the hoof, or sent down the river in flat-boats. Thousands of hogs are raised with little attention or expense, and pork is largely exported.

6. *Manufactures.* Manufactures, except of the ruder sort of articles of the first necessity, can hardly be said to exist. Castor-oil and linseed-oil, flour, whisky, leather, salt, the common agricultural implements, cotton-yarn and some cotton, and cotton and woolen goods, are produced, the latter mostly of household make. The abundance of coal in the southern part, and the inexhaustible water-power of the north, offer every facility for the introduction of large manufacturing establishments; but the present condition of the inhabitants does not permit their application on a large scale. It appears from returns made to the legislature in 1835, that there were, at that time, 916 mills, 142 distilleries, and 339 manufactories in the State; but the last item includes many handicraft's workshops. Steamboat building has of late begun to assume importance as a branch of mechanical industry.

7. *Government.* The legislature is called the General Assembly, and consists of a Senate and House of Representatives. The senators are chosen for 4 years, and the representatives for 2. The Governor is chosen for 4 years. The legislature has but one stated session in 2 years. Elections are popular, and suffrage is universal. The State sends three representative to Congress.

8. *Religion.* The Baptists have 160 ministers, and the Campbellites, Christians, and Reformers are numerous; the Methodists 300 preachers; the Presbyterians 60, exclusive of the Cumberland, Reformed, and Associate Reformed Presbyterians. The Episcopalians number 10 societies, the Roman Catholics 12, and there are Friends, Dunkers, Moravians, and Mormons.

9. *Education.* *Illinois College*, at Jacksonville, was founded in 1830. It has 5 instructers, and 60 students. *Shurtleff College* at Alton, *McKendrean College* at Lebanon, and *McDonough College* at Macomb, are still more youthful institutions. Large tracts of land have been granted by the government for the support of schools, but no system of general education has yet been organized.

10. *History.* This State was first explored by Marquette, a French traveler, in 1673, and

toward tne end of the 17th century, settlements were formed by the French at Kaskaskia and Cahokia, as already related. These establishments, however, did not become politically important. At the treaty of Paris, in 1763, this country came into the possession of Great Britain. This State formed a part of the region which in 1789 was placed under a territorial government, with the title of the Western Territory. In 1800 that part comprising Indiana and Illinois, was made a distinct Territory. In 1809, Illinois was made a separate Territory, and in 1818 it was admitted into the Union as an indenendent State.

CHAPTER XXXIII. MICHIGAN

PHYSICAL GEOGRAPHY.

1. ***Boundaries and Extent.*** Michigan is bounded on the S. by Ohio, Indiana, and Wisconsin ; E. by lakes Erie, Huron, and Superior, and their connecting rivers ; N. by Lake Superior ; and W. by Wisconsin. It extends from 41° 20′ to 49° N. lat., and from 82° 20′ to 91° W. long., having an area of 70,000 square miles. It consists of two great natural divisions, the lower peninsula, between lakes Huron and Michigan, and the upper peninsula, between the latter and Lake Superior.

2. *Face of the Country.* The centre of the lower peninsula forms an elevated table-land, 300 feet above the surface of the lakes, and divides the waters flowing into Lake Michigan from those running into lakes Erie, St. Clair, and Huron. The face of the country in general is level or gently undulating; the southern part consists of open land, known by the name of the Oak Plains, with a productive soil ; in the southwest, are fertile prairies. The basins of the lakes are deep depressions, sinking far below the level of the ocean, although their surfaces are upwards of 600 feet above it. The upper or northern peninsula is much more hilly and rugged than the southern ; the rivers are much broken by rapids and by falls of great height, and the western part is covered by the lofty ridges of the Wisconsin or Porcupine Mountains, which are estimated to rise to the height of 2,000 feet above Lake Superior.

3. *Rivers.* The rivers of the northern peninsula mostly flow north into Lake Superior, and, though large streams, have rapid and broken currents. The *Montreal* is the northwestern boundary, and it has a fall of about 90 feet, just above its mouth. The *Ontonagon* and *Keweena* are also considerable rivers. The *Menomonie* flows into Green Bay, and forms the southwestern limits of this section. It is navigable about 80 miles. Within the lower peninsula, are the *St. Joseph's*, with a course of 200 miles, and navigable for steamboats 70 miles ; the *Kalamazoo*, a smaller and more rapid stream, navigable for boats ; the *Grand River*, or *Washtenau*, which has a winding course of about 300 miles, rising to the northwest of Saginaw Bay ; the *Marquette* and the *Monteste*, all flowing into Lake Michigan ; the *Cheboiegan*, a large stream in the north, flowing into Lake Huron ; the *Saginaw*, composed of 5 or 6 large branches meeting from the south, the east, the west, and the north, and passing into the bay of the same name ; and the *Huron* and *French* rivers, smaller streams, running into Lake Erie.

4. *Lakes.* Beside the great bounding lakes, that have already been described under the head of North America, there are a great number of smaller lakes in the southern peninsula, contributing not less to the beauty than to the fertility of the country ; no one of them is considerable for its size, but they are so numerous as to form a striking feature of the country.

5. *Climate.* The winters are severe, particularly in the northern part, and snow lies to the depth of from 6 to 18 inches, for several weeks, even in the southern part. The average temperature of winter is 20° ; of summer, 80°. The spring is wet and backward ; summer, dry ; autumn, mild ; winter, dry and cold.

6. *Minerals.* Salt springs occur in many places ; iron and lead ore, gypsum, and coal are found, and peat is abundant. Copper is thought to exist abundantly in the northwest. On the banks of the Ontonagon have been discovered large masses of native copper, one of which weighed 2,200 pounds. The mineral resources of the country have not yet been turned to much account.

7. *Natural Curiosities.* The southern shore of Lake Superior exhibits a singular phenomenon, called the ***Pictured Rocks***. They are a series of lofty bluffs and precipices, exhibiting the appearance of towering walls, ruins, caverns, waterfalls, &c., in every variety of combination They are generally abow 300 feet in height, and often overhang the water. The color

varies in shades of black, yellow, red, white, and brown. The waves, driven by the violent north winds, have worn the rocky shores into numerous caverns, bays, and indentations, which increase the romantic effect of these appearances. In one place, a cascade tumbles from the top of the rock in so wide a curve, that boats pass between the sheet of water and the shore. Another spot exhibits a mass of rock supported by four natural pillars, and overgrown on the top with trees; it is called the *Doric Rock*, and closely resembles a work of art.

8. *Soil.* The country along the eastern shore of Lake Michigan consists of hills of sand thrown up by the lake, and producing some scanty herbage, and a few stunted trees. The land is still encroaching upon the water. In the eastern part of the peninsula, the soil is fertile; the northwestern parts have been little explored; but the land along the rivers is of an excellent quality. Perhaps, taken as a whole, there is no region of equal extent, that contains so much good land as the lower peninsula. In the northern, however, there are extensive tracts of sandy plains and rocky hills.

9. *Vegetable Productions.* All the water-courses, ponds, and marshes in the northwestern parts, are covered with the *Zizania aquatica*, or wild rice. It is a tall, reedy water-plant, and springs up from the depth of 6 or 7 feet, where the bottom is soft and muddy; it rises nearly as high above the water; its leaves and spikes resemble those of oats, but are much larger. When it is intended to be preserved, the spikes are bound together to preserve the grain from the water-fowl, who resort to these spots in millions. After it has ripened, canoes are rowed among the grain; blankets are spread in the bottoms of the canoes, and the grain is beaten out upon them. It is as white as common rice, and has much the taste of sago.

POLITICAL GEOGRAPHY.

1. *Divisions.* Michigan is divided into 41 counties.[*]

Population at different Periods.

1810, ...	4,762	1830, ...	28,004
1820, ...	8,896	1837, ...	175,000

2. *Towns.* The city of *Detroit*, the capital, and much the largest town in the State, occupies the site of an old French post and village, which took the name, meaning Strait, from the river which connects lakes St. Clair and Erie. Although founded at the beginning of the last century, Detroit was an inconsiderable village in 1830; its business and population have increased with great rapidity during the last few years, and must continue to grow with the growth of the great region bordering on the upper lakes. Standing in the centre of this great chain of seas, and on the summit level in which the principal rivers of the continent rise, it communicates easily with Quebec, New York, New Orleans, and with the shores of lakes Superior, Huron, and Michigan. There are here several handsome public buildings, the streets are regular and spacious, and the situation pleasant. Population, 10,000. Numerous large steamers run between this place and Chicago on the one side, and Buffalo on the other, touching at the intermediate parts. The city of *Monroe*, on the River Raisin, is a flourishing and busy town, with an active trade and considerable manufactures. Population, 3,500. *Adrian*, *Ann Arbor*, *Tecumseh*, and *Pontiac*, in the southeast, *St. Joseph*, *Niles*, and *Grand Haven*, in the southwest, are small but growing villages.

On the island of Mackinaw, at the mouth of the straits of the same name, are the little village of *Mackinaw*, and a frontier post of the United States. *Fort Brady*, at the outlet of Lake Superior, is the northernmost military post of the United States in this quarter. Here is also the little village of *St. Mary*, the only white settlement in the upper peninsula. Population 800, mostly French and half-breeds. There is also a military post at the foot of Lake Huron, called *Fort Gratiot*.

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[*] Allegan
Arenac
Barry
Berrien
Branch
Calhoun
Cass
Chippewa
Clinton
Eaton
Genesee
Gladwin
Gratiot
Hillsdale
Ingham
Ionia
Iosco
Isabella
Jackson
Kalamazoo
Kent
Lapeer
Lenawee
Livingston
Macomb
Mackinaw
Midland
Monroe
Montcalm
Oakland
Oceana
Ottawa
Saginaw
St. Clair
St. Joseph
Sanilac
Shiawassee
Tuscola
Van Buren
Washtenau
Wayne

3. *Canals and Railroads.* In 1837, the legislature created a Board of Commissioners of Internal Improvement, and authorized the raising of a loan of 5,000,000 dollars for the purpose of executing a series of public works, as follows: — 1. The *Southern Railroad*, is to extend from the city of Monroe to New Buffalo, on Lake Michigan, 180 miles. 2. The *Central Railroad*, from Detroit to the mouth of the St. Joseph, 200 miles. 3. The *Northern Railroad*, from Huron, at the foot of Lake Huron, to the mouth of Grand River, 200 miles. Appropriations were also made for surveys of the Kalamazoo, St. Joseph, and Grand River, in order to ascertain the best means of improving the navigation of those rivers, and several canals. The *Northern Canal* connects the Grand River, by the Maple River branch, with the Saginaw. The *Clinton and Kalamazoo Canal* connects Lake Michigan, by the Kalamazoo and Clinton rivers, with Lake St. Clair; and a ship canal round the falls of the St. Mary is proposed. Other railroads constructed by individuals are the *Detroit and Pontiac Railroad*, 30 miles in length; the *Detroit and Shelby Railroad*, from Detroit to Utica, 23 miles; the *Erie and Kalamazoo Railroad*, extending from Toledo in Ohio, through Adrian, to Marshall on the Kalamazoo, with a branch to Havre, at the mouth of the Ottawa; and the *Ypsilanti and Tecumseh Railroad*, 25 miles.

4. *Agriculture, &c.* The inhabitants are almost wholly occupied in agricultural pursuits. The productions are the same with those of the adjoining States. Wheat and oats are the principal crops, and maize or Indian corn, rye, buckwheat, barley, hemp, and flax are generally cultivated. The common fruits and garden vegetables thrive, and heavy crops of grass are obtained. The live stock is pretty numerous. There are about 500 saw-mills, and 150 grist-mills, in the State, but the manufactures are inconsiderable. The trade consists chiefly in the export of its surplus produce, with furs and skins from the interior, and the importation of manufactures and tropical productions for consumption.

5. *Education.* The *University of Michigan* has recently been established on a very liberal scale, at Ann Arbor, and is well endowed by the State. There are also colleges at Spring Arbor and Marshall, and very ample provision has been made for the establishment of a system of common education.

6. *Government.* The constitution of the State was formed in 1835. The Governor is chosen for the term of 2 years, and a Lieutenant-Governor chosen for the same term, is President of the Senate. The legislature consists of a Senate, chosen biennially, and a House of Representatives, chosen annually. These officers and bodies are all elected by popular vote, and suffrage is universal. Michigan has 1 representative in Congress.

7. *History.* Lake Huron was visited by Champlain as early as 1615, and a post and mission were established by the French at Mackinaw, in about the middle of the 17th century. Fort Pontchartrain, on the present site of Detroit, was built some time after. In 1763 this country passed with Canada into the hands of the British, but the English garrison at Fort Mackinaw was surprised and massacred by the Indians, in that year. Until 1805 Michigan formed a part of the Northwest Territory, but in that year became a distinct government. In 1812 Detroit was captured by the British, and the terrible massacre of the Americans at Frenchtown, by the Indian allies of that power, followed. The enemy was soon after driven from the peninsula by General Harrison, and in 1836 Michigan was admitted to the rights and rank of a State.

CHAPTER XXXIV. WISCONSIN.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* Wisconsin extends from Lakes Michigan and Superior to the Mississippi, being bounded on the N. by the Hudson Bay Company's Territories and Lake Superior, on the E. by that Lake, Michigan, and Lake Michigan, S. by Illinois, and W. by the Mississippi and Iowa. It lies between 42° 30′ and 49° 30′ N. lat., and between 86° 50′ and 96° W. long., being about 600 miles in length, and from 100 to 200 in breadth, with an area of 80,000 square miles.*

2 *Mountains.* The *Wisconsin* or *Porcupine Mountains* extend from the head of Rock

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* The course of the boundary between Lake Superior and the Lake of the Woods is a subject in controversy between Great Britain and the United States; the latter claiming the valley of the Kaministiquia or Dog River, the former that of the St. Louis, as the line of direction.

River to Lake Superior, traversing the central part of Wisconsin. Their elevation in some parts is estimated to be about 2,600 feet. There is a ridge of low hills between the sources of the Mississippi and the Red River from 1,200 to 1,500 feet above the level of the sea, but not more than 200 or 300 above that of the surrounding country. A similar ridge stretches round the western end of Lake Superior, dividing its tributaries from those of the Mississippi.

3. *Rivers.* The *Mississippi* washes the western boundary and receives the principal rivers. The *Rock River* passes into Illinois, but is navigable within the limits of Wisconsin. The *Wisconsin* is one of the most important tributaries of the Upper Mississippi, and has a course of about 500 miles, rising near the sources of the Montreal of Lake Superior and the Menomonie of Lake Michigan, and approaching at the great bend within a few miles of Fox river ; its navigation is obstructed by shoals and bars, except in high stages of the water. The *Chippewa* is also a large stream entering the Mississippi. The *St. Louis* flows into the Fond du Lac or head of Lake Superior, and may therefore be considered as the source of the St. Lawrence ; it is much broken by rapids and falls. The *Fox River* of Green Bay, is a fine navigable stream, with some rapids.

4. *Climate. Soil.* The climate scarcely differs from that of the corresponding parts of Michigan. In the southwest are extensive tracts of good soil with some swamps and marshes ; the prairie or unwooded land prevails, except on the borders of rivers. In the south there are some sandy and some rugged tracts, and extensive marshes and lakes. On the Upper Mississippi are valuable forests of white pine.

5. *Minerals.* The most valuable mineral product has hitherto been lead, and copper is also found, but there has been no examination of the mineral resources of the earth. The lead district is a part of that which occupies a portion of Illinois and Iowa.

POLITICAL GEOGRAPHY.

1. *Divisions and Population.* Wisconsin is divided into 19 counties.* The population is about 30,000.

2. *Towns.* The towns in an agricultural district which has been settled for only a few years, must necessarily be small. The capital is *Madison*, recently founded on the Four Lakes, with about 500 inhabitants. *Milwaukee*, on Lake Michigan, with the best harbor on this coast of the lake, has about 2,000 inhabitants. *Sheboiegan*, further north, has an advantageous situation for a trading town. *Navarino*, at the mouth of Fox River, has also a good harbor, and will become important as the country becomes peopled. *Fort Howard*, a military post of the United States, stands opposite to Navarino, and at the mouth of the Wisconsin is *Fort Crawford*. *Prairie du Chien*, the most northern village on the Mississippi, is on the site of an old French village, and has a population of 600 souls.

3. *Canals.* The *Portage Canal* 1¼ mile in length, connects Fox River with the Wisconsin, and therefore the Mississippi with the lakes, and completes a steamboat navigation from Ogdensburg and Buffalo to New Orleans. The junction of the Rock and Milwaukee by a canal, is projected.

4. *Indians.* The *Menomonies* occupy a tract on the river that bears their name. The *Chippewas* are thinly scattered round the heads of the Mississippi and the coast of Lake Superior. There are some bands of the *Six Nations* from New York on Green Bay.

CHAPTER XXXV. MISSOURI.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* This State is bounded N. by Iowa, W. by the Indian Territory and the Missouri, E. by Illinois, Kentucky, and Tennessee, and S. by Arkansas. It extends from 36° to 40° 30′ N. latitude, and from 89° to 95° 30′ W. longitude. It is 300 miles in length and from 220 to 300 in breadth, and contains 68,000 square miles.

2. *Mountains.* The *Ozark Mountains* extend from the central parts of this State south-

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* Brown
Calumet
Crawford
Dane
Dodge
Fond du Lac
Grant
Green
Iowa
Jefferson
Manitouwoc
Milwaukee
Marquette
Portage
Racine
Rock
Sheboiegan
Washington
Walworth.

westerly into the region west of the Arkansas. East of them is a ridge called the *Iron Mountains.* Some of the peaks of these mountains are said to be 3,000 feet high, but they have been little explored.

3. *Rivers.* The *Mississippi* washes the whole eastern boundary of this State. The *Missouri* passes through it from west to east, and here joins the Mississippi. The *Osage* enters from the west, and joins the Missouri near the centre of the State ; it has a boat navigation of 600 miles. The *Gasconade* falls into the Missouri below the Osage ; it is navigable for boats 66 miles. The *Merrimack* or *Maramec* falls into the Mississippi below the Missouri ; it is navigable 50 miles. The *St. Francis*, the *White Water*, *Black and Currant Rivers* rise in the south and pass into Arkansas. *Grand* and *Chariton Rivers* fall into the Missouri from the north. *Salt River* is a branch of the Mississippi, in the same quarter ; these are navigable for boats.

4. *Climate.* This State is subject to great extremes of temperature. The summer is intensely hot, and the winter often so severe, that the Missouri is frozen for weeks so as to be passed by loaded wagons. The sky in summer is clear, and the air generally very dry.

5. *Soil.* The soil of this State contains more sand, and is more loamy and friable than that of the lands upon the Ohio. The alluvial prairies are universally rich, and nearly as fertile as the river bottoms. The rich uplands have a dark gray soil, except about the lead mines, where the soil is formed of a decomposed pyrites, and is of a reddish color. Nearly all the level tracts are sufficiently fertile to produce good crops of maize without manure. The alluvial borders of the Missouri are generally loamy, with a large proportion of sand. The soil here contains a quantity of marl or lime, and is exceedingly fertile. The richer prairies and bottoms are covered with grass and weeds so tall as to make it difficult to travel on horseback. In the southwestern part are large tracts of poor, sandy soil, covered with yellow pine, and in many parts stony.

6. *Minerals.* Perhaps no region in the world surpasses Missouri in the variety and abundance of its mineral resources ; to inexhaustible stores of lead and iron, coal and salt, are to be added zinc, manganese, antimony, plumbago, iron pyrites, arsenic, and copper, nitrous and aluminous earth, potter's clay, marble, freestone, and granite, sulphuretted and thermal waters, &c., and according to some accounts, indications of silver and cobalt occur. Generally speaking, the prevailing rocks are carboniferous limestones and saliferous sandstones : the Ozark Mountains appear to consist mainly of masses of instrusive rocks, granite, sienite, porphyry, &c., and of altered limestones and sandstones. The repository of the lead-ore, which is galena or sulphuret of lead, is magnesian limestone, but the limits and extent of the galeniferous region have never been ascertained ; the ore is known to be abundant, not only in the districts usually called the lead region, and the seat of the oldest and most extensive diggings, but also in several counties west of the Osage, and north of the Missouri. Operations were commenced here by the French as early as 1720. The processes have been of the rudest sort ; wherever indications of the *mineral*, as the galena is called by the miners, appear on the surface, an excavation has been commenced, and the whole surface of the ground has been cut out into pits of various sizes, from 3 or 4 to 20 feet in diameter, and from 10 to 15 feet in depth, the " *digging* " being abandoned as soon as the depth renders it inconvenient to throw out the earth, or to hoist out the mineral by a simple windlass and bucket ; blasting is also resorted to when a rich vein is struck in the metalliferous rock, but much of the ore is found loose in alluvial desposits, in lumps of various sizes. In a large way, it yields from 80 to 85 per cent of pure metal, but by more careful processes might be made to give considerably more. The annual produce of the Missouri diggings is at present about 7,000,000 pounds, a portion of which is manufactured into shot and sheet lead.

Iron-ore is found in numerous localities, but we have no particular account of its character and quantity, except in the case of the enormous masses in Madison and Washington counties. The Iron Mountain, of this district, is a homogeneous deposit of pure, massive, specular iron, containing only in a few cases, crystals of feldspar; and the Pilot Knob, is a mountain made up in large proportion of specular iron, the feldspar often scarcely exceeding the ore with which it is mixed. Although copper and silver are known to exist, and have been successfully worked, we have no definite account of the situation and extent of the ores. Bituminous coal is found in almost every county, except in the mineral district, and the beds are said to be of great extent and of easy access. Salt springs are numerous, but little attention is paid to the manufacture of salt.

7. *Face of the Country.* The northwestern part of the State is a wide prairie. The central and southwestern parts are hilly and broken ; the southeastern is low, swampy, full of lakes, and subject to inundation from the waters of the Mississippi. The best portion of the State and the most thickly peopled lies between the Missouri and the Mississippi ; it has an undulating and variegated surface, and contains large tracts of alluvial and hilly prairies.

8. *Earthquakes.* Earthquakes have been common here from the first settlement of the country ; several shocks were felt at Kaskaskia, in 1804, by which the soldiers stationed there were aroused from sleep, and the buildings were much shaken and disjointed ; and oscillations still occur with such frequency as to be regarded with indifference by the inhabitants, who familiarly call them *shakes.* But the agitations of December, January, and February, 1811 and 1812, which were felt from New England to New Orleans, are the only ones known to have left permanent traces on the face of the earth, although there is every probability that this part of the valley of the Mississippi has been much convulsed at former periods. In 1812, the earth here opened in wide chasms, from which columns of water and sand burst forth ; hills disappeared, and their places were occupied by lakes ; the beds of lakes were raised, and their waters flowed off, leaving them dry ; the courses of the streams were changed by the elevation of their beds and the falling in of their banks ; for one whole hour the current of the Mississippi was turned backwards towards its source, until its accumulated waters were able to break through the barrier that had dammed them back ; boats were dashed on the banks, or suddenly left high and dry in the deserted channel, or hurried backwards and forwards with the eddying surges, while in the midst of these awful changes, electric fires, accompanied by loud rumblings, flashed through the air, which was darkened by clouds of vapor. In some places submerged forests and cane brakes are still visible at a great depth on the bottom of lakes, which were then formed. That the cause of these convulsions was not local, as some have imagined, is evident enough from the fact, that the Azores, the West India Islands, and the northern coast of South America, were unusually agitated at the same time, and the cities of Caraccas, Laguayra, and others on the last were totally destroyed.

POLITICAL GEOGRAPHY.

1. *Divisions.* Missouri is divided into 64 counties.*

Population at several Periods.

	Whites.	Slaves.	Free Colored.	Total Pop.
1810	17,227	3,011	607	20,845
1820	55,988	10,222	376	66,586
1830	114,795	25,091	569	140,455
1836	202,757	40,540	911	244,208

2. *Towns.* *St. Louis*, once the capital, is the largest town in the State. It stands on the western bank of the Mississippi, 18 miles below the mouth of the Missouri. The site of the town rises gently from the water, and is bounded on the west by an extensive plain. The buildings mostly occupy several parallel streets extending along the river. Some of the houses are of wood, whitewashed, but many of them are of stone and brick ; they are generally furnished with gardens. Here are a Catholic college, and several other seminaries of learning.

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* Audrain
Barry
Bates
Benton
Boone
Caldwell
Callaway
Cape Girardeau
Carroll
Chariton
Clarke
Clay
Clinton
Cole
Cooper
Crawford
Daviess
Franklin
Gasconade
Greene
Howard
Jackson
Jasper
Jefferson
Johnson
Lafayette
Lewis
Lincoln
Linn
Livingston
Macon
Madison
Marion
Miller
Monroe
Montgomery
Morgan
New Madrid
Orange
Perry
Pettis
Pike
Polk
Pulaski
Ralle
Randolph
Ray
Ripley
Rives
St. Clair
St. Charles
St. Francois
St. Genevieve
St. Louis
Saline
Scott
Shannon
Shelby
Stoddard
Taney
Van Buren
Warren
Washington
Wayne

The Catholic cathedral is a magnificent structure. The hospital, and orphan asylum, under the care of the Sisters of Charity, the Convent of the Sacred Heart, the City Hall, &c., are among the public buildings. The population is 16,000, including many Germans and French. The fur trade, the lead mines, the supplies for the Indians, create a good deal of business here, and St. Louis is the emporium of the vast regions on the Upper Mississippi and the Missouri. The manufactories are also extensive and increasing, and the abundance of coal in the neighborhood and the mineral wealth of the State, must make this an important branch of industry. There is a United States Arsenal just below the city, and 5 miles distant are *Jefferson Barracks*, an important military station.

St. Genevieve, on a small creek, near the Mississippi, has a Catholic church and some neat French houses ; most of the inhabitants are French. Considerable lead is exported from this place. Population, 800. *Cape Girardeau*, on the Mississippi, 50 miles above the Ohio, is finely situated upon a bluff, but is not a flourishing town. *Potosi*, in the centre of the mining country, occupies a pleasant spot, surrounded by hills. It has a great trade in lead.

Herculaneum, on the Mississippi, 30 miles below St. Louis, stands on a narrow, alluvial spot, bounded on the land side by lofty bluffs. It is the chief depot for the lead mines, and has several shot towers. *New Madrid*, on the Mississippi, 50 miles below the Ohio, was once a considerable place, but suffered severely by earthquakes in 1811 and 1812. *St. Charles*, on the Missouri, is pleasantly situated and handsomely built, and is a flourishing town. Population, 2,000. The *City of Jefferson* is the seat of government. The situation is on the southern bank of the Missouri, in the centre of the State, and is agreeable and commanding. Here are a State-house and penitentiary.

3. *Agriculture.* Maize, wheat, rye, oats, flax, and hemp, are extensively cultivated. Some cotton is raised in the southern parts. Tobacco is also raised. The land is easy of tillage, but the great obstacle to farming is the want of fencing materials, the soil in some places affording neither stones nor timber fit for the purpose.

4. *Government.* The legislature is called the General Assembly, and consists of a Senate and House of Representatives. The senators are chosen for 4 years, and the representatives for 2. The Governor is chosen for 4 years. Elections are popular, and suffrage is universal. The State sends two representatives to Congress.

5. *Religion.* The Baptists and Methodists are the most numerous sects ; there are also Presbyterians, Episcopalians, many Catholics, &c.

6. *Education.* The *University of St. Louis* is a Catholic Institution. It was founded in 1829. It has 15 instructers, and 200 students. *St. Mary's College*, in Perry, has 15 teachers, and 130 pupils. *Marion College* at Palmyra, *Columbia College* at Columbia, and *St. Charles's College* at St. Charles, are useful institutions. There are also several convents in the State, where females are sent for education.

7. *History.* This State was originally a part of the great Territory of Louisiana. Some settlements had been made by the French in 1764 ; yet, previous to the acquisition of the country by the United States, it contained but few inhabitants. In 1804 it was separated from Louisiana, and erected into a Territory. A constitution was formed in 1820, and the next year it was admitted as a State into the Union.

CHAPTER XXXVI. ARKANSAS.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* This State is bounded N. by Missouri ; E. by the River Mississippi, which separates it from Tennessee and Mississippi ; S. by Louisiana, and W. by the Indian Territory. It lies between 33° and 36° 30′ N. latitude, and between 90° and 94° 30′ W. longitude. Its length is 240 miles, and its breadth varies from 200 to 280 miles , it contains 54,500 square miles.

2. *Mountains.* Several ranges of the *Ozark* chain cross the northwestern part of the State ; they are here called the *Black Mountains.* A ridge called the *Masserne Mountains*, branches off from the Ozark, and extends easterly to the south of the Missouri. These mountains have been little explored.

3. *Rivers.* The *Arkansas*, one of the greatest branches of the Mississippi traverses this State from northwest to southeast. It rises in the Rocky Mountains in about latitude 41° N.

and pursuing a southeast course, joins the Mississippi 400 miles above the mouth of Red River. Its whole length is more than 2,000 miles. It surpasses all the rivers of the West in the perfect regularity of its curves and bends, and in the beauty and uniformity of the young cotton-wood groves, that spring up on the convex sand-bars. In the spring floods steamboats can ascend it nearly to the mountains. ***White River*** has its sources in the ridge called the Black Mountains, which divides its waters from those of the Arkansas. It flows east and receives ***Black River*** in latitude 35° 15′ N., after which, its course is southerly. Near its mouth it divides into two branches ; the smaller branch joining the Arkansas, while the eastern enters the Mississippi. The other rivers are the ***St. Francis***, ***Cache***, ***Washita***, ***Bartholomew***, and ***Red River***. The Washita, a noble river, running through a fertile and beautiful region, flows nearly parallel with the Arkansas and the Red River, and is navigable 350 miles from its mouth.

4. *Climate.* The climate is a compound of that of Missouri and Louisiana. Until we advance 200 miles west of the Mississippi, in its humidity it more nearly resembles the latter. The distribution of rain is very unequal. Drenching rains and thunder are experienced sometimes 36 days in succession. At other times the weather is remarkable for long droughts. Planting of corn commences by the middle of March, and cotton by the first of April. The shores of the Arkansas, as far up as Little Rock are extremely unhealthy. Great tracts on all sides are covered with sleeping lakes and stagnant bayous. The country is a dead level ; and the falling waters of the rains cannot be drained off. On the vast prairie which commences just above the Post, and extends 90 miles up the country, it is more healthy. This long sweep of country is thoroughly ventilated. But the air, in the timbered bottoms, is close and unelastic ; and the mosquitoes are excessively troublesome. Further up the country and on the open prairies, it is as healthy as in any other country in the same latitude.

5. *Soil.* The soil is of all qualities, from the best to the most sterile. Much of the country on the Washita, has a soil of great fertility and of the blackness of ink. On White River are some of the best lands and the healthiest sites in the country. The soil on the St. Francis is very fertile, and covered with a heavy growth of beech. On the whole, this State has a sufficiency of excellent lands to sustain a rich and populous community.

6. *Geology.* The mountains are composed chiefly of secondary rocks, limestones, clay slates, and sandstones, traversed in many places by dikes of greenstone, granite, and sienite. The rest of the State consists in part of the same secondary rocks, and in part of alluvial, and tertiary beds. Vast masses of sea-shells are found dispersed over different tracts of this country. They are generally found in points remote from limestone ; and answer a valuable purpose to the inhabitants, who collect and burn them for lime.

7. *Natural Productions.* The whortleberry of the north is found in great perfection in the southwest extremity of this State. The hills in many places are covered with red cedars and savines ; and muscadine grapes are met with in abundance.

8. *Minerals.* Limestone, gypsum, and stone-coal, abound on the banks of the White River, and iron ore is plentiful in all parts. Salt occurs principally in the Salines, a tract about 100 miles wide, extending through the whole breadth of this State, from north to south, at the distance of 700 miles from the Mississippi. Here is the salt prairie, which is covered for many miles with pure, white, crystallized salt, from 4 to 6 inches deep. The Hot Springs, toward the southwest part of this State, are among the most interesting curiosities of the country. The waters are remarkably pure and limpid, and are efficacious in many disorders ; but they exhibit no mineral properties beyond common spring-water. During the spring floods of the Washita, a steamboat can approach within 30 miles of them. Two miles from the springs is the famous quarry of stone called oil-stone. The mountains in the vicinity of these springs are thought to be volcanic.

9. *Animals.* The country is still in many parts unsubdued, and wild animals abound. Among them are the bear, the deer, the beaver, the badger, and the gopher.

10. *Face of the Country.* For some distance up the waters of the Arkansas and White Rivers, the country is an extensive, heavily-timbered, and deeply inundated swamp. Near the St. Francis hills and at Point Chicot, the eastern front along the Mississippi is above the overflow. The remainder of the eastern line is a continuous and monotonous flooded forest. The State has large and level prairie plains, and possesses a great extent of rocky and sterile ridges, with a considerable surface covered with mountains. Near the southwest part of the State is a singular, detached elevation, called *Mount Prairie*.

POLITICAL GEOGRAPHY.

1. *Divisions.* This State is divided into 34 counties.*

Population at different Periods.

1810	Whites,		Slaves,		Total,	1,052
1820	“	13,552	“	1,167	“	14,273
1830	“	25,671	“	4,576	“	30,388
1837	“	54,000	“	14,000	“	68,200

2. *Towns.* *Little Rock*, on the south bank of the Arkansas, is the seat of government. It received its name by antiphrasis from the prodigious masses of rock in its neighborhood ; and it has a healthy and pleasant situation. Population, 1,500. The other principal towns are *Arkansas*, an ancient French settlement, the inhabitants of which are mostly descendants of French and Indians. Population, 100. *Batesville*, on White River, *Helena*, on the Mississippi, *Ecore Fabre*, on the Washita, *Lagrange* and *Fulton*, on Red River, are also petty villages.

3. *Agriculture.* Cotton is the staple article of cultivation ; but it becomes an uncertain crop north of the river St. Francis. The rich lands produce fine maize and sweet potatoes. Rye and barley will thrive in almost every part ; and wheat does well in the high country. Figs are raised, but with difficulty ; the tree being frequently killed by the frost. Peaches are raised in great excellence and abundance ; and various kinds of fruit are cultivated with success.

4. *Government.* Arkansas, which originally formed a part of Louisiana, and was subsequently included in the Territory of Missouri, was detached from the latter with a separate government in 1819, and became a State in 1836. The Governor is chosen by the people, and holds office for 4 years. The legislature, styled the General Assembly, consists of a Senate, elected for the same term, and a House of Representatives, for 2 years. Suffrage is universal for the whites. The State sends one representative to Congress.

CHAPTER XXXVII. IOWA.

1. ***Boundaries and Extent.*** The Territory of Iowa lies between the Missouri and Mississippi rivers, being bounded on the S. by Missouri, on the E. by the Mississippi, separating it from Wisconsin and Illinois, on the N. by the Hudson's Bay Company's Territories, and on the W. by the White Earth and Missouri rivers. It extends from 40° 30′ to 49° N. lat., and from 90° to 102° W. long., and is above 600 miles in length, by from 200 to 300 in breadth, having an area of about 170,000 square miles. The greater part of the Territory is still occupied by Indian tribes, and a large proportion of its surface has not been explored by whites, except by trappers and traders.

2. ***Face of the Country**, &c.* The central portion is traversed by a broad ridge, presenting few irregularities of surface, and attaining no great elevation above the surrounding level, although it forms the water-shed between the Mississippi and the Missouri. It is called by the Canadians *Coteau des Prairies*, or Hill of the Prairies, and in many parts is very rugged ; the height is estimated at about 2,000 feet ; but the general elevation of the country makes about half that amount. In the south the country is nearly level, or diversified only by gentle swells, and deep depressions cut out by the action of water. The soil of this portion is extremely fertile, resembling the best parts of Missouri and Illinois ; the prairie prevails except on the river borders. The lead region of Missouri and Wisconsin is continued through this part of the Territory. In the north there are extensive patches of sandy and rocky land, and the soil is generally of inferior quality, and much of it is unsuitable for cultivation.

3. ***Rivers.*** Besides the great limitary streams, this Territory contains several large and navigable rivers. The ***Red River*** flows north, and is the southernmost stream that reaches

* Arkansas
Carroll
Chicot
Conway
Clark
Crawford
Crittenden
Greene
Hempstead
Hot Springs
Independence
Izard
Jackson
Jefferson
Johnson
Lafayette
Lawrence
Miller
Mississippi
Monroe
Phillips
Pike
Pope
Pulaski
Randolph
Saline
Searcy
Scott
Sevier
St. Francis
Union
Van Buren
Washington
White

Hudson's Bay , several of its branches rise within a few hundred yards of the heads of the Mississippi, and one of them, the *Mouse River*, has its sources within a mile of the Missouri. The principal and most remote head of the Mississippi is Itasca Lake. The *Corbeau* or *Crow Wing*, *St. Peter's*, *Iowa*, and *Desmoines*, are its principal tributaries in this Territory ; the *Penaca*, *Wabesipemecon*, and *Chacagua*, are also considerable streams in the settled part of the Territory. The *Jacques* or *James*, *Sioux*, *Nishnebottona*, and *Chariton*, are the most important of those flowing into the Missouri.

4. *Divisions and Population.* Iowa is divided into 22 counties,* and contains a population of about 50,000 souls, exclusive of the Indians. The white population is all confined to a comparatively small strip in the southeast.

5. *Towns.* This country was purchased of the Sauks and Foxes in 1832 and 1837 ; the cession of 1832, which was much the most extensive, being generally known as the Black Hawk Purchase ; and, in addition to its mineral treasures and agricultural resources, it possesses, in its central position on the Mississippi, rare facilities of water communication with the remotest points of the north and the south, the east and west. *Dubuque*, in the mining district, finely situated on a gently sloping prairie, contains a population of about 1,500 souls. Numerous smelting-furnaces and a white-lead factory employ many of the inhabitants. A weekly newspaper is printed in Dubuque, and there are here a bank and 3 churches. *Davenport*, opposite Fort Armstrong, *Bloomington*, *Burlington*, and *Madison*, on the Mississippi, and *Farmington* on the Des Moines, are the principal villages below. Burlington, the most important, has about 3,000 inhabitants. The capital of the Territory is *Iowa City*, recently founded on the river of the same name.

6. *Native Tribes.* The region between the Missouri on the west, and the Mississippi and Red River on the east, is almost entirely occupied by the Sioux or Naudowessies, one of the most numerous and powerful Indian nations in the United States. They call themselves Dahcotahs or Confederates, and the confederation consists of 7 bands or tribes, comprising about 25,000 persons, exclusive of the Assiniboins, a tribe of seceders, who reside mostly beyond the American boundary. The Dahcotahs are a fierce and warlike race, the terror of their neighbors ; dwelling in vast prairies, they live chiefly by the chase, and the bison affords them at once a supply of food and a covering for their lodges ; they raise some maize, pumpkins, and beans, and they employ the dog in carrying burdens ; like other prairie Indians, they have also learned the use of the horse, and are bold and skilful riders. The Board of Foreign Missions have stations on Lake Harriet and Lac qui Parle, with 12 missionaries and teachers. The Assiniboins or Stone Indians, call themselves Eascab, and are termed by the Dahcotahs, with whom they are continually at war, Hohays or Rebels. South of the Sioux, between the Des Moines and the Iowa, are the Sauks and Foxes, confederate tribes of the great Algonquin stock, who have long been distinguished for their daring and restless spirit ; after having fought their way from the shores of Lake Ontario to the Mississippi, they have been driven beyond that river by the Chippewas, and more recently and effectually by the American troops. The true name of the latter is Musquakiuk, but they are called Ottogamies by the other Algonquin tribes, and received the name of Rénards or Foxes, from the French. The number of both tribes is about 4,500 souls. The Iowas have mostly removed, with a band of Sauks, to the Indian Territory ; they are reduced to a sort of dependence on the Sauks and Foxes. The Winnebagoes have lately been removed from the tract between the Mississippi and Wisconsin to the west side of the former, between the Sauks and Foxes and the Sioux ; their number is about 4,500. They belong to the Sioux stock, and are called by the Canadians, Puants. In the southwestern corner of the Territory are about 2,000 united Ottawas, Chippewas, and Pottawattamies, who have been removed thither from Indiana and Michigan, and will soon be joined by about 3,000 of their brethren from the same region.

Fort Snelling, a United States military post, a few miles below the Falls of St. Anthony, is the most remote northwestern port occupied by the troops of the confederacy. The American Fur Company have several factories and trading-houses in this country, and the little village of *Pembina*, planted by Lord Selkirk, on the Red River, is within the limits of the United States.

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* Benton
Buchanan
Cedar
Clayton
Clinton
Delaware
Des Moines
Dubuque
Fayette
Henry
Jackson
Jefferson
Johnson
Jones
Keokuck
Lee
Linn
Louisa
Muscatine
Scott
Van Buren
Washington

CHAPTER XXXVIII. INDIAN TERRITORY.

1. *Boundaries and Extent.* The Indian or Western Territory, as it is generally called in official papers, is an extensive region, which has been set aside by the general government as a permanent home for the Indian nations, whose removal beyond the limits of the States has been going on for several years. The tract thus appropriated, extends from the western boundary of Arkansas and Missouri to that of the United States, lying between the Red River, on the south, and the Punca and Platte or Nebraska, on the north ; it is about 600 miles in breadth, from north to south, by from 700 to 750 in extreme length ; the southern part, however, not being more than one half that length. The area may be roughly stated at about 225,000 square miles.

2. *Face of the Country.* In the southeastern corner, between the Arkansas and Red River, the country is mountainous, being traversed by the Ozark range. Beyond this, it spreads out into wide expanses of a slightly undulating surface, or into extensive plains, over whose dead level the eye wanders to the verge of vision. In the western part of the northern belt, successive groups of isolated table-lands, or elevated platforms of no great height or extent, and regular but not lofty ranges of hills, mark the approach to the foot of the Rocky Mountains. The base of these mountains is about 3,000 feet above the level of the sea, and James's Peak rises to the height of 11,500 feet ; further north, near the sources of the Platte, some points attain a much greater elevation.

3. *Rivers.* This region is traversed by several large rivers, all of which rise in the Rocky Mountains, and reach the Mississippi and Missouri. They have the common character of rivers of a desert, flowing through tracts of sand, with wide but shallow beds, obstructed throughout by sand-bars and banks, sometimes so scantily furnished with water as to form merely a succession of stagnant pools, and sometimes even presenting dry channels. The *Nebraska*, *Platte*, or *Shallow River*, although it has a course of nearly 1,000 miles, and is in many places several miles in width, is so shoal, that it may be forded at almost any point in moderate stages of the water, and can scarcely be said to be navigable for any considerable length of time. In the lower part of its course, its banks and islands are covered with cotton-wood and willows, which, however, soon disappear, as you ascend, and for several hundred miles scarcely a tree or shrub is to be seen, until, on approaching the mountains, it is again lined with straggling groups of stunted trees. The *Kansas*, or *Konzas*, is also a large stream, and it receives several considerable tributaries, called the *Republican Fork*, *Solomon's Fork*, *Smoky Hill Fork*, and *Grand Saline Fork* ; in high stages of the water, it may be navigated for a distance of nearly 200 miles, but is beset with numerous shoals. The *Arkansas* is, however, the principal river of this region ; rising in the Rocky Mountains, near the heads of the Rio del Norte, it forms for several hundred miles the boundary between New Mexico and this Territory, which it traverses, passing into Arkansas. It affords few facilities for navigation, being shallow, and in some parts entirely disappearing. Steamboats ascend to Fort Gibson. From the north, it receives the *Verdigris*, the *Neosho* or *Grand River*, and the *Illinois* ; and from the south, the *Negracka*, *Nesuketonga* or *Salt Fork*, and *Canadian*. The last mentioned rises in the Mexican Mountains, and has a course of nearly 1,000 miles, but its channel is shallow, and sometimes quite dry, the waters being rapidly absorbed by the sands. The *Red River* is better supplied with water ; and since the removal of the great raft in Louisiana, steamboats come up into this Territory. Its largest tributaries from the north, are the *Washita*, or *False Washita*, *Blue Water*, and *Kiamesha*.

4. *Soil.* The western part of the Territory forms a portion of the Great American Desert, which extends along the eastern foot of the Rocky Mountains, with a breadth of about 500 miles, far beyond the limits of the Territory. The soil is arid, sterile sand, almost destitute of trees and even shrubs. Vast tracts consist of bare rocks, gravel, or sand, and others are covered only with yuccas, cactuses, grape-vines, and cucurbitaceous plants ; nearly the whole region is either destitute of water during a part of the year, or presents to the wayworn and exhausted traveler only a brackish and bitter draft ; in many places the surface is whitened by saline efflorescences, and all wears the aspect of desolation. This region is unsusceptible of cultivation, yet it does not exhibit the naked aspect of the African deserts ; in certain seasons it is traversed by full streams, and in some parts it affords pasture for large herds of bison, droves of wild horses, and other animals. It is frequented by wandering bands of savages, who roam

from place to place in pursuit of game. The eastern part of the Territory, forming a strip of about 200 miles in breadth, is in general productive, and well suited to agricultural purposes. It is mostly prairie, skirted here and there, chiefly along the river-valleys, by lines of woodland, and there are extensive fertile bottoms on the lower parts of the rivers. A portion of it is unfit for cultivation, such as the mountains and flint-hills, that are interspersed throughout the country. These, however, add to the salubrity of the climate, and afford game and a good range for stock at certain seasons. The country will produce abundantly all the varieties of grain, vegetables, and agricultural products, which are raised in the States of the same latitude east of the Mississippi. It is also admirably adapted to the raising of stock of every description. South of the Kansas River, there is no necessity to provide for them in winter, as they live in the range winter and summer. This section is the portion which is occupied by the emigrant and indigenous tribes, whom the Federal Government are aiming to fix in permanent abodes, and to educate in the arts of peace.

5. *Population.* The population of the Indian Territory consists of tribes of eastern origin, who have been removed thither by the United States, by their own consent; of indigenous bands and tribes, who occupy a part of their original hunting-grounds, or have merely been removed to an adjoining tract, more suitable for their residence; and of the wild, roving bands of the western portion, who have had, until very recently, no communication or political connexion with the authorities of the Republic.

The Choctaws possess the tract lying between Arkansas and New Mexico, bounded on the south by the Red River, and on the north by the Canadian; and the Chickasaws are settled among them. Most of the inhabitants are now engaged in agriculture; they have good houses and well-fenced fields; they raise more Indian corn and cotton than is necessary for their own consumption, and own great numbers of cattle, horses, sheep, and swine. There are several native traders, mechanics, and teachers among them, some of whom have been educated at the Choctaw Academy, in Kentucky; and 5 saw and grist mills, and 2 cotton-gins, with numerous ploughs, looms, and spinning-wheels, give indications of their civilization. The European costume is generally adopted, and most of them enjoy the common luxuries of their white neighbors, — tea, coffee, sugar, &c. The Choctaws have a written constitution, and they have established the trial by jury; their government is administered by 4 Principal Chiefs, elected for a term of 4 years, and a Legislative Council, of 30 members, chosen annually by the people. The Board of Foreign Missions have 5 stations here, and there are 2 Baptist and 1 Methodist mission in the nation. Fort Towson, a United States military post, on Red River, is within their territory.

The Creek country lies between the Canadian on the south, and the Cherokee frontier on the north. It is well watered and wooded, though containing extensive prairies. The character and condition of the Creeks or Muscogees resemble those of the Choctaws, but they are less advanced in the mechanic arts and in civilization generally than that tribe. Most of them have comfortable houses, good gardens and orchards, and raise Indian corn in large quantities, with some rice and wheat; they have live stock enough to supply their own consumption. The Seminoles are seated within the Creek country; they retain more of the habits of hunters. The Creek government is administered by a General Council of the nation, in accordance with the provisions of a written constitution; and the execution of the laws is intrusted, under the direction of the Council and Judges, to executive officers, called Light Horsemen. There are 2 stations of the Baptists, 1 station of the Board of Foreign Missions, and a Methodist mission among the Creeks; several of the missionaries are natives.

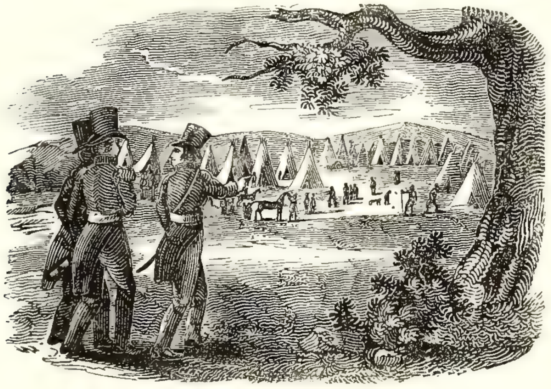
The Cherokees own the tract north and east of the Creeks. They have entirely abandoned the chase, and are more advanced in civilization than any of their neighbors. They have several saw and grist mills, and one or several ploughs to each farm. There are several native traders, one of whom owns a steamboat, which runs between their country and New Orleans; and some of the natives have executed contracts for subsisting the garrison of Fort Gibson. The government is conducted by 3 Principal Chiefs, and the legislature, consisting of 2 houses, meets annually. Each district is also under the care of 2 Judges and two Light Horsemen, or Sheriffs. The Board of Foreign Missions have missionaries, farmers, and mechanics, with 4 schools and a printing-press, in their country; and the Methodists and Baptists have each a mission.

The Senecas, Shawnees, and Quapaws, occupy a small tract on the Neosho. The Senecas, among whom are about 50 Mohawks, and the united bands of Senecas and Shawnees, are skilful farmers, have comfortable cabins, and several mills. The Quapaws have made less progress, but they are peaceable and industrious. The Senecas, who removed thither from New York, have a translation of the book of Common Prayer, which many of them are able to read, and one of their number officiates at their meetings for public worship.

The Osages or Wososhes are an indigenous tribe, and are mostly dependent upon the chase. Their squaws raise some Indian corn and beans. A band on the Neosho owns some cattle and hogs, and have begun to use the plough. The others live in portable lodges, formed by inserting small poles in the ground, and bending them over so as to meet at the top, where an aperture is left for the escape of the smoke, the sides being covered with flags, or buffalo or elk skins. Their country extends along the northern boundary of the Cherokees. Further north, on the Osage River, are the small kindred bands of Piankeshaws, Weas, and Peorias of the Miami nation, and the related bands of Pottawatamies and Ottawas. They have fenced and ploughed fields, and decent cabins, and own a considerable number of cattle. The Methodists, the Western Missionary Society, and the Baptists, have missionaries among them.

The Shawnees or Shawanees own a tract lying between the head of the Osage and the lower part of the Kansas River. They are among the most improved of the Indian tribes, having generally good houses, well fenced and ploughed fields, and a sufficient number of live stock; there is also a saw and grist mill in the country. The Methodists and Baptists have missions among them, and at the Shawanee station under the care of the latter, there is a printing-press. North of the Kansas, and southwest of the Missouri, is the Delaware country, which extends westward 200 miles, with a breadth of 10 miles; the condition of the Delawares resembles that of the Shawanees, with whom they were long politically connected; and there are among them Methodist and Baptist missions.

The Kansas or Konzas occupy a tract on both sides of the Kansas river, between the Delaware and Shawanee lands; they are an indigenous tribe, nearly allied to the Osages, and are poor and wretched; their lodges are partly like those of the Osages, and in part made of earth; in these last, the roof is supported by wooden props within. They follow the chase for a subsistence. The Kickapoo tract lies on the western side of the Missouri, on the north of the Delaware country. The Kickapoos are of kindred origin with the Illinois and Miami bands, and resemble them in their condition. One of the Kickapoo chiefs has founded a religious society; he lays claim to divine revelations, and inculcates abstinence from ardent spirits, flagellation for sin, and the observance of holy days. The religious ceremonies consist of a series of prayers chanted by the whole assembly, and they are solemnized four times a week. Many Pottawatamies are also seated here. Fort Leavenworth, on the Missouri, is in the Kickapoo territory. The united bands of Sacs or Sauks and Iowas occupy a tract north of the Kickapoos, on the Missouri. They have lately removed, but are in an improving condition.



Indian Village.

The Otoes, between the Platte or Nebraska and the Little Nemahaw; the Omahas or Mahas, between the Platte and the Missouri; the Pawnees,* to the west of the latter; and the

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* "Every hour that I spent with the Indians impressed upon me the conviction, that I had taken the only method of becoming acquainted with their domestic habits and their undisguised character. Had I judged from what I had been able to observe at Fort Leavenworth or other frontier places where I met them, I should have known about as much of them as the generality of scribblers and their readers, and might, like them, have deceived myself and others into a belief in their 'high sense of honor,' their hospitality, their openness and love of truth, and many other qualities which they possess, if at all, in a very moderate degree; and yet it is no wonder if such impressions have gone abroad, because the Indian, among whites, or at a garrison, trading-post, or town, is as different a man from the same Indian at home, as a Turkisk 'mollah' is from a French barber. Among whites, he is all dignity and repose; he is acting a part the whole time, and acts it most admirably. He manifests no surprise at the most wonderful effects of machinery, — is not startled if a twenty-four pounder is fired close to him, and does not evince the slightest curiosity regarding the thousand things that are strange and new to him; whereas, at home, the same Indian chatters, jokes, and laughs among his companions: frequently indulges in the most licentious con

Puncas, to the north, are indigenous tribes, and retain their primitive barbarous habits of life with little or no change. They pursue the buffalo, and the squaws raise Indian corn, beans, and pumpkins. In the desert regions further west, are roving tribes of Camanches, Kioways, and Towash, often called Pawnee Peets or Piquas ; and nearer to the mountains, of Arickaras or Rees, Shiennes or Cheyennes, Arrepahas, Gros Ventres, and Eutaws, who wander from place to place, on both sides of the frontier, in pursuit of game, and have had little intercourse with the whites. They are skilful horsemen ; their arms are chiefly the bow and arrow, lance, war-club, and buckler, and their dwellings moveable skin lodges or tents. The great caravan road from Missouri to Santa Fe, crosses the country, and there is a trader's fort on the Upper Arkansas.

CHAPTER XXXIX. WESTERN DISTRICT.

1. *Boundaries and Extent.* The vast expanse extending from the Punca and the Nebraska or Platte to lat. 49° N., and from the Missouri and the White Earth Rivers to the Rocky Mountains, over an area of about 300,000 square miles, has been but partially explored, and has received no official name. It is occupied by wild bands of independent Indian tribes, who have had little connexion with the whites, except with the traders, who have several posts and trading stations in the country. The greater portion of this region, as far as is known to us, consists of prairie, bordered and intersected here and there by patches of woodland, chiefly

versation ; and his curiosity is as unbounded and irresistable as that of any man, woman, or monkey on earth. Truth and honesty (making the usual exceptions to be found in all countries) are unknown or despised by them. A boy is taught and encouraged to steal and lie ; and the only blame or disgrace ever incurred thereby, is when the offence is accompanied by detection. I never met with liars so determined, universal, or audacious. The chiefs themselves have told me repeatedly the most deliberate and gross untruths, to serve a trifling purpose, with all the gravity of a chief-justice ; and I doubt whether Baron Munchausen himself would be more than a match for the great chief of the Pawnees. Let them not dispute the palm ; each is greatest in his peculiar line ; one in inventive exaggeration, and the other in plain, unadorned falsehood."

The dandyism of the youthful Pawnees is superb :

"About the age of twenty, they are allowed to hunt, and seek other opportunities for distinction. This epoch answers to the Oxonian's first appearance in London life, after taking his B. A. degree. I have seen some dandies in my life, — English, Scotch, French, German, ay, and American dandies, too ; but none of them can compare with the vanity or coxcombry of the Pawnee dandy. Lest any of the gentry claiming this distinction, and, belonging to the above-mentioned nations, should doubt or feel aggrieved at this assertion, I will faithfully narrate what passed constantly before my eyes in our own tent ; namely, the manner in which Sa-ni-tsa-rish's son passed the days on which there was no buffalo-hunt. He began his toilet, about eight in the morning, by greasing and smoothing his whole person with fat, which he afterwards rubbed perfectly dry, only leaving the skin sleek and glossy ; he then painted his face vermilion, with a stripe of red also along the centre of the crown of the head ; he then proceeded to his 'coiffure,' which received great attention, although the quantum of hair demanding such care was limited, inasmuch as the head was shaved close, except one tuft at the top, from which hung two plaited 'tresses.' He then filled his ears, which were bored in two or three places, with rings and wampum, and hung several strings of beads round his neck ; then, sometimes painting stripes of vermilion and yellow upon his breast and shoulders, and placing armlets above his elbows, and rings upon his fingers, he proceeded to adorn the nether man with a pair of moccasins, some scarlet cloth leggins fastened to his waist-belt, and bound round below the knee with garters of beads four inches broad. Being so far prepared, he drew out his mirror, fitted in a small wooden frame (which he always, whether hunting or at home, carried about his person), and commenced a course of self-examination, such as the severest disciple of Watts, Mason, or any other religious moralist, never equaled. Nay, more ; if I were not afraid of offending the softer sex, by venturing to bring man in comparison with them in an occupation which is considered so peculiarly their own, I would assert, that no female creation of the poets, from the time that Eve first saw 'that smooth, watery image,' till the polished toilet of the lovely Belinda, ever studied her own reflected self with more perseverance or satisfaction than this Pawnee youth. I have repeatedly seen him sit, for above an hour at a time, examining his face in every possible position and expression ; now frowning like Homer's Jove before a thunder-storm ; now like the same god, described by Milton, 'smiling with superior love' ; now slightly varying the streaks of paint upon his cheeks and forehead, and then pushing or pulling 'each particular hair' of his eyebrows into its most becoming place ! Could the youth have seen anything in that mirror half so dangerous as the features which the glassy wave gave back to the gaze of the fond Narcissus, I might have feared for his life or reason ; but, fortunately for these, they had only to contend with a low, receding forehead, a nose somewhat simious, a pair of small, sharp eyes, with high cheek-bones, and a broad mouth well furnished with a set of teeth, which had at least the merit of demolishing speedily everything, animal or vegetable, that came within their range. His toilet thus arranged to his satisfaction, one of the women or children led his buffalo-horse before the tent ; and he proceeded to deck his steed by painting his forehead, neck, and shoulders with stripes of vermilion, and sometimes twisted a few feathers into his tail. He then put into his mouth an old-fashioned bridle, bought or stolen from the Spaniards, from the bit of which hung some six or eight steel chains, about nine inches long ; while some small bells, attached to the reins, contributed to render the movements of the steed as musical as those of the lovely 'Sonnante' in the incomparable tales of Comte Hamilton. All things being now ready for the promenade, he threw a scarlet mantle over his shoulders, thrust his mirror in below his belt, took in one hand a large fan of wild-goose or turkey feathers, to shield his fair and delicate complexion from the sun, while a whip hung from his wrist, having the handle studded with brass nails. Thus accoutred, he mounted his jingling palfrey and ambled through the encampment, envied by all the youths less gay in attire, attracting the gaze of the unfortunate drudges who represent the gentler sex, and admired supremely by himself." — *Murray's Adventures in the Far West.*

in the river-valleys ; but even these are often wholly destitute of trees, and in general nothing but wide, grassy expanses, or bare plains of sand and shingle, meet the eye. In approaching the mountains, the forest again makes its appearance. Much of this tract belongs to the Great Desert, and is scantily supplied with water and herbage of any kind, and portions of it are too rugged for cultivation.

2. *Mountains.* The first mountain-masses met with in ascending the Nebraska and the Missouri, have received the name of the *Black Hills*, from the dark hue imparted to them by the stunted cedars, with which their flanks are covered. They extend from the Missouri below the Yellowstone to the Arkansas, forcing the former to make a long northerly sweep before it takes its southeasterly course toward the Mississippi. Of the height and width of this range we know nothing. On the western border tower up the lofty granitic peaks of the *Rocky Mountains*, in whose eastern valleys the numerous heads of the Missouri and Nebraska take their rise. These ridges are covered with perpetual snow, indicating an elevation of at least 10,000 feet, but in many places they rise much higher ; the *Wind Mountains* are believed to be nearly 18,000 feet high ; no accurate measurements, however, have been made in these wild regions. The Black Hills consist of gneiss, mica-slate, greenstone, amygdaloid, and other igneous rocks, and the Rocky Mountains, as far as is known, are composed of granite, sienite, basalt, &c.; pumice is found in the Missouri, but it is uncertain whence it is derived, as no recent volcanic production has been found east of the mountains.

3. *Rivers.* The *Missouri* is the most remarkable natural feature of this region nearly the whole of which is drained by its numerous branches. The source of this great stream was reached by Captain Lewis and his party, on the 12th of August, 1805, about 3,100 miles by its meanders above its junction with the Mississippi, in about lat. 43° 30′. "They had now," says the journalist of the expedition, "reached the hidden sources of that river which had never yet been seen by civilized man, and as they sat down by the brink of that little rivulet, which yielded its distant and modest tribute, they felt themselves rewarded for all their labors and all their difficulties." Within three quarters of a mile of this interesting spot, the party tasted the waters of Columbia River. The constituent streams of the Missouri received from these travelers the names of *Jefferson*, *Gallatin*, and *Madison*, after having gathered up the waters of these mountain-valleys, the river breaks forth from the mountains, through a lofty barrier of rocks, which rise in mural precipices to the height of 1,200 feet above the water. "Nothing can be imagined more tremendous than the frowning darkness of these rocks, which project over the river, and menace us with destruction. The river, of 150 yards in width, seems to have forced its channel down this solid mass ; but so reluctantly has it given way, that during the whole distance the water is very deep at the edges, and, for the first 3 miles, there is not a spot, except one of a few yards, in which a man could stand between the water and the towering perpendicular of the mountain ; the convulsion of the passage must have been terrible, since at its outlet there are vast columns of rock torn from the mountain, which are strewed on both sides of the river, the trophies, as it were, of the victory ;" the length of this chasm, which the travelers called the Gates of the Rocky Mountains, is 5 miles. Some distance below this point, occurs a succession of falls and rapids, where the river descends 350 feet in a distance of about 15 miles, whence it continues its course, 2,575 miles, to the Mississippi. Its channel is extremely crooked, and at the Great Bend it makes a circuit of 30 miles, in advancing only 2,000 yards in a direct distance. The *Yellowstone* is its greatest tributary in the upper part of its course ; its sources are in the eastern valleys of the mountains, the *Bighorn*, or southern branch rising near the heads of the *Nebraska* and the *Colorado* of the West, and its northern or main branch issuing from the immediate vicinity of the sources of the Missouri and *Lewis's River*. Soon after breaking through the mountain barriers, these branches become navigable, and below their junction there are few impediments to navigation ; steamboats have ascended the Yellowstone about 300 miles. *Tongue* and *Powder Rivers* are its principal tributaries. The *Little Missouri*, *Wetarhoo*, *Sarwariamme*, *Shienne*, *Cheyenne*, or *Chayenne*, the *White River*, and the *Quicourt* or *Running River*, are the most important tributaries of the Missouri, from the right, between the Yellowstone and the Nebraska. They appear to be in general rapid, shallow streams, much impeded by sand-banks, and liable to sudden rise and fall of their waters ; they flow mostly through prairies or unwooded tracts, and some of them wander through the desolate skirts of the Great Desert. From the north come in *Maria's River*, the *North Mountain*, *Milk*, *White Earth*, and other considerable streams. The Nebraska or Platte, the bounding river on the south, has been previously described ; its

principal or *Northern Fork* rises near the heads of the Colorado, and is the great southern route of the trappers and traders across the mountains ; wagons have been carried through from Missouri to Lewis's River by this route, which follows up the valley of the *Sweet Water* or northern branch of the fork. " Two hours' ride," says a traveler, on quitting the Sweet Water, " over a smooth prairie and slight swell, now brought us on to water flowing into the Pacific Ocean ; not, however, as our geographers would lead one to expect, upon the waters of the Columbia, but those of the Colorado of the Gulf of California."

4. *Inhabitants.* This region is entirely in the possession of the native tribes, most of whom lead a wandering life, at least during the greater part of the year. Unlike the nomadic hordes of Tartary, they have no domestic animals except the horse and the dog, but they roam in pursuit of the bison, which is the principal source of subsistence of many of the tribes. The women, however, generally raise some Indian corn. The skins and furs of the wild animals also furnish them an important source of traffic with the whites, who scour all parts of the country. There are several forts or fortified trading-posts of the American Fur Company within its limits ; such are Fort William, on the Nebraska, at the base of the Black Hills ; Fort Union, on the Missouri, 6 miles above the mouth of the Yellowstone ; Fort Mackenzie, near the Great Falls, 600 miles above the mouth of the Yellowstone, and Fort Cass, on the Yellowstone, below the mouth of the Bighorn.

The country on the lower part of the Missouri is occupied by erratic bands of Sioux, who roam westward to the Bighorn, and to the base of the Rocky Mountains, in pursuit of the bison or buffalo. Higher up are the Cheyennes, and Arickarees or Rees. The Mandans and Minnetarees have lately been exterminated by the smallpox. The Assinaboins, Crees, and Gros Ventres or Big Paunch Indians, north of the Missouri, and the Crows or Upsarokas of the Yellowstone, pursue a wandering life without any fixed place of residence ; they live by the chase, and their food is meat, roots, and berries. Their shelters are lodges formed of the raw skins of elks and buffaloes ; they are generally well supplied with horses, and travel and hunt entirely on horseback ; they raise no horses themselves, but supply themselves by robbing and stealing from the whites, and from other tribes of Indians. The Blackfeet roam and hunt on both sides of the mountains, and of the northern frontier.

CHAPTER XL. COLUMBIA OR OREGON.

1. *Boundaries and Extent.* The region extending westward from the Rocky Mountains, and known by the name of the great river which drains it, is claimed by the United States and Great Britain. The former rest their claim on priority of discovery, exploration, and occupation, and on cession by Spain. The Columbia was first entered by the ship Columbia from Boston, Captain Gray, in 1792 ; and in 1805, Lewis and Clarke descended from its heads to the sea, and built a fort at its mouth. By a convention between the United States and Russia, in 1824, it was agreed, that the latter power should not extend its settlements south of 54° 40′ north latitude, and by treaty between the United States and Spain, in 1819, the Mexican boundary beyond the mountains, was fixed along the parallel of 42° north. This treaty is considered as equivalent to a cession of the Spanish claims to the United States, and it is contended by the latter power, that Spain alone, of the European powers, had a rightful claim, founded on discovery, to this region. Great Britain, however, makes pretensions to at least a part of this tract, and the area belonging to the United States must depend upon the settlement of the question, whether the northern boundary shall be fixed in 54° 40′, or at some other less remote point. The British have proposed to fix it on the parallel of 49° from the mountains to the Columbia, and thence down that river to the sea ; and the Americans have offered to adopt that parallel from the mountains to the ocean as their northern limit, but neither power has accepted the proposal of the other. The whole tract claimed by the United States is about 850 miles in length, from north to south, and from 700 to 400 miles in breadth, with an area of upwards of 350,000 square miles ; if limited to the parallel of 49°, the length would be nearly 500 miles, the area about 250,000 square miles.

2. *Mountains. Face of the Country.* One of the most striking features of this region is the huge mass of mountains that occupies a considerable portion of its surface. The *Rocky Mountains*, sometimes called the *Chippewayan*, or the *Stony Mountains*, consist of several parallel ridges, running nearly northwest and southeast, and of numerous transverse chains, shooting off eastwardly and westwardly into the lofty plains that spread out at their base. Both

series of ridges are mostly covered with perpetual snows, and must have a general elevation of above 10,000 feet, but many peaks tower up to a much greater height. The ***Three Tetons*** or *Paps*, at the head of Lewis's River, and other points less known, are thought to be from 15,000 to 18,000 feet in height, and according to some there are peaks further north, which reach an elevation of 24,000 or 25,000 feet. The great valley of Lewis's River is bound in on the north and south by snow-capped ridges, stretching westward to the main Columbia, and similar ridges surround Clarke's River, and fill the region between the Columbia and the Oakinagan. The rocks appear to be mostly of igneous origin, granite, basalt, &c. ; and craters of extinct volcanoes are said to be met with. The awful precipices, rugged crags, yawning chasms, and serrated outlines, which characterize mountains of this formation, here present themselves in all their terrors. The high plain of Lewis's River is covered with volcanic glass and sharp broken stones, of similar origin ; and hot springs, of the temperature of 100 degrees and upwards, abound. From 400 to 500 miles further west, and about 150 miles from the sea, is the littoral chain or prolongation of the *Californian Mountains*, in which are Mounts ***Baker***, ***Rainier***, ***St. Helen's***, and ***Hood***, the last on the south, the others on the north of the Columbia, and skirting the shores of Puget's Sound, Admiralty Inlet, and the Gulf of Georgia ; Mount St Helen's is about 14,400 feet, and Mount Hood 16,000 feet in height. In the same range, further south, are ***Mount Jefferson***, ***Mount McLaughlin***, ***Simpson's Peak***, ***Smith's Peak***, and other points not much inferior in elevation. Still further west, the country is traversed by lofty hills, which line the shores of the ocean.

The lofty plains or table-lands interspersed among the mountains, are often of great extent ; that through which Lewis's River takes its course, being about 120 miles in breadth, and several hundred in length. They are generally sandy, and often destitute of vegetation, or beset with cactuses, or covered with a scanty herbage during only a short time ; in many cases, however, they produce nutritious grasses, which fit them admirably for the raising of horses and black cattle. Scarcely any rain falls above the littoral chain of mountains, and the unwooded surface is exposed to the parching heats of a burning sun. This region is in fact a prolongation of the great Californian desert, and although its horrors are here somewhat mitigated by running streams and occasional fertility, yet the features of that vast steppe may be traced far north on the Upper Columbia. There are several salt-lakes in this great desert, of which the principal is the ***Lake Bonneville***, of Irving, probably the ***Timpanogos*** of Humboldt ; it is about 120 miles long by 70 or 80 broad. To the south are 2 smaller lakes, and to the southwest another of considerable size, which receives Mary's or Ogden's River, a large stream on the route of the hunters from St. Louis to Monterey.

Below the coast chain the country is in general fertile, and admirably adapted for agricultural purposes, and there are tracts here of great beauty and luxuriance of vegetation. On the west side of the mountains, the forests, nourished by the kindly influence of the moisture, present specimens of some of the most majestic trees known, and the mildness of the climate, the fertility of the soil, and the ready communication with the largest of the oceans, will one day make this region the seat of a populous and opulent community. Seven or 8 species of pine, some of which are of gigantic size, abound here ; the red pine is 250 feet high, and the ***Pinus Lambertiana*** attains the same height, with a diameter of nearly 3 feet 58 feet from the ground, a perfectly straight stem, and no branches for 160 feet. The wood of this tree is of excellent quality, and yields a large portion of rosin ; the cones are from 15 to 18 inches long by 3 in diameter, and the seeds, when dried and pounded, are made into a sort of cake. Growing trees, that have been burned, yield a substance closely resembling sugar, and used as such by the natives. The quamash or kamas-roots (***Scilla esculenta***) are sweet and palatable when roasted, and are the chief source of subsistence to some of the tribes ; the roots of the somuchtan (***Lupinus littoralis***), mentioned by Lewis and Clarke as a sort of liquorice, are also roasted, and contain much farinaceous matter ; the wappatoo and other edible roots are extensively consumed as food, and an indigenous species of tobacco of good quality, is likewise found here.

3. ***Rivers. Bays.*** Nearly the whole region is drained by the River Columbia, and its wide-spreading and numerous branches. It takes its name from the ship which first entered the river. The ***Columbia***, or as it is also called, the ***Oregon***, rises in the most rugged steeps of the Rocky Mountains, the sources of the northernmost branch being near the heads of Frazer's River, in about 54° north latitude ; in about 52° this branch is joined by another of greater length from the south, which flows from the vicinity of the fountains of the Saskatchawan, in latitude 50°. Its length is about 1,200 miles ; the tide flows up about 170 miles to the foot

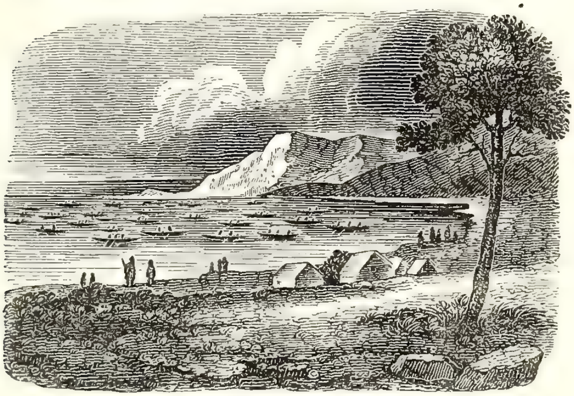
of the Great Rapids, below which point the width is generally 2 or 3 miles and rarely less than 1, and vessels of 300 tons may go up to Fort Vancouver, 100 miles from the ocean. At the Great rapids, the river is compressed into a gorge not more than 150 yards wide, through which the foaming waters are hurried with great violence. About 90 miles further up are the Great Falls, where the descent is about 50 feet, and there are numerous rapids and falls thence to its head.

The principal tributaries of the Columbia are from the east, those which come in on the right being in general inconsiderable streams; the *Oakanigan*, *Yackaman*, and *Coweliskee*, are, however, large rivers. *Clarke's*, or *Flathead River*, rises in the mountain valleys, near the heads of the Missouri, and flows first through a rugged country, and lower down through extensive and fertile valleys and verdant plains. It is navigable in the upper part of its course, but about 60 miles from its mouth, becomes so rapid and so much broken as not to admit of navigation. *Lewis's River*, also called the *Shoshonie*, or *Saptin*, is the principal tributary of the Columbia, having a course of about 1,000 miles, chiefly through vast, barren plains. It rises near the head of the Yellowstone and the Colorado, and its current is impetuous, and broken by numerous cascades. The *Malade*, *Wapticacoos*, and *Kooskooskee*, from the north, and the *Owyhee*, *Malheur*, and *Walleway*, from the south, are its principal tributaries. The *Frazer*, or *Tacoutche Tesse*, runs nearly parallel with the Columbia, and empties its waters into the Gulf of Georgia. The Hudson's Bay Company have several posts on this river and its branches, which abound in the fur-bearing animals. The fine island of Quadra and Vancouver, north of Juan de Fuca's Straits, is about 150 miles long, and contains some excellent harbors, among which are those of *Nootka Sound*, *Port Cox*, and *Nitinat*.

Nootka Sound.

5. *Inhabitants.* The only establishments of the whites in this region are the Hudson's Bay Company's post and settlements, and some missionary stations, the whole country being in possession of the native tribes. Fort Vancouver, the principal depot of the Company for Columbia District, stands on the north bank of the River Columbia, 100 miles from its mouth. A Company's ship from London arrives here annually, in the spring, with goods, and returns in the autumn, after having made a trip to the Sandwich islands and back, with furs, and several vessels remain on the coast to traffic, and bring in the furs. Every spring numerous parties leave Fort Vancouver, in boats loaded with goods for the Indian trade, for the different interior posts; these are Fort Wallawallah, about 250 miles up the river; Fort Colville, near the mouth of the Clarke; Oakanigan House, at the mouth of that river; Flathead House, on Clarke's River, and Fort McKay, on the Umpqua; forts Langley, Thompson, and Alexander, on Frazer's River, and Fort Simpson, further north, also receive their goods from Fort Vancouver, and transmit thither their furs and peltries. Fort George, at the mouth of the Columbia, is on the site of Astoria. There is also a white setttlement on the Wallamut, or Multnomah, where the Methodists have a mission. The Board of Foreign Missions have two stations on this side of the mountains.

The native tribes exist in a very rude social state, and many of them in a most miserable and degraded condition. Those inhabiting the coast appear to be of kindred origin, resembling each other in their language, aspect, and manners. The Skilloots, Wackhiacums, Cathlamahs, Chinnooks, and Chilts, on the northern side of the Columbia, and the Clatsops and Killamoucks, on the south, are among the number. The Umpquas, Clamets, Yunchills, Wallamuts or Multnomahs, Callipoori or Calipoyas, further south, and the Culquats further north, in the vicinity of Cape Flattery, appear to be of different stocks. The former derive their subsistence from the chase and the fisheries, and are very skilful in the management of their canoes ; they trade with the Europeans, with whom they exchange furs and peltries for trinkets, guns, powder, kettles, &c., and with the tribes higher up the river, with whom they barter these articles for salmon, edible roots, &c. The singular custom of compressing the head in infancy, so as to render it completely wedge-shaped, prevails among all these tribes ; a compress of bark, attached to the forehead and back of the head during the first year of infancy, is sufficient to effect this purpose. The Esheloots, below the Great Falls, are different, both from the lower and upper tribes.


Indian Fleet at Nootka Sound.

The tribes above the Falls, over a great extent of country, appear to be of kindred origin. The Eneshurs, at the head of the Falls ; the Wallawallahs, or Kiaous, at the mouth of the Wallawallah ; the Nez Percés, or Bored Noses, called by Lewis and Clarke, Chopunnish, and by others, Sahaptins, probably names of different bands, on the lower part of Lewis's River ; the Sokulks and Chimnapums on the Columbia, above that river ; the Skynses and Tooelicans, southeast of the Wallawallahs ; the Salish or Flatheads, Tuskepahs and Ponderays, in and near Clarke's River ; the Spokans, and Pointed Hearts or Cœur d'Alênes, on the river Spokan ; the Camloops and Sinapoils, between the Oakinagan and the Columbia ; the Oakinagans on the river of that name ; the Cootonais, further north, &c. are all more or less nearly related in language, customs, and character ; the term Flathead is applied to these tribes to distinguish them from the lower tribes, which compress the head into a wedge-shape. They subsist chiefly on salmon, of which prodigious shoals ascend the rivers yearly, game, and roots. Further southeast, on the borders of the great desert, are the Shoshonies, or Snakes, who seem to be of a different origin ; they are more warlike in their habits, but are generally friendly to the whites ; the Shoshonies, Nez Percés, and other tribes living in the great open plains, have large droves of fine horses, of superior speed, bottom, and spirit.

6. *History.* The discovery of this region has already been noticed. In 1811, the Pacific Fur Company established a post, called Astoria, at the mouth of the Columbia ; soon after which, the Hudson's Bay Company's servants fixed themselves on some points higher up the river. On the breaking out of the war with England, the factor of the American Company sold the establishment at Astoria to the British Company ; the name of the post was changed to St. George. In 1818, it was surrendered into the hands of the Americans. A convention, concluded between Great Britain and the United States in that year, stipulated, that all the territory west of the Rocky Mountains, claimed by the two parties, should be open to the subjects and citizens of each, without prejudice to the claims of either, during a period of 10 years ; this convention was renewed for an indefinite period, in 1828, with the provision, however, that it might be brought to a close on a year's notice from either party to the other.

CHAPTER XLI. BRITISH AMERICA.

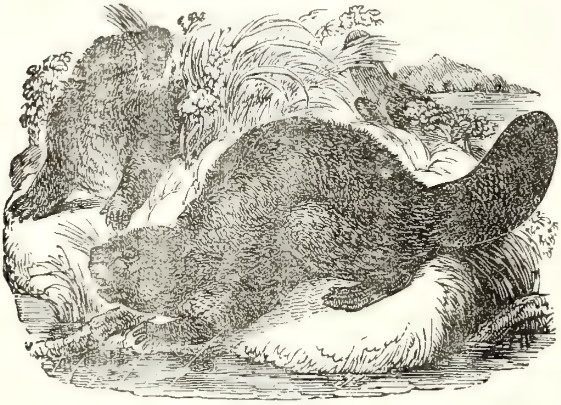
1. *Boundaries, Extent, and Divisions.* This country, taken in its largest limits, is bounded N. by the Arctic Sea, and Baffin's Bay; E. by the Atlantic; S. by the United States, and W. by Russian America and the Pacific Ocean. It extends from 42° 30′ to an undefinable limit N., and from 55° to 140° W. longitude. Its area is superior to that of the United States. The principal divisions are Nova Scotia, Prince Edward's Island, New Brunswick, Newfoundland, Upper and Lower Canada, and New Britain, or the Hudson's Bay Company's Territories.

2. *Mountains.* This vast region is traversed by the *Rocky Mountains* from north to south in its western part, but there are no other considerable mountain ranges. Ridges of hills separating the waters flowing into the lakes and the Atlantic from those of Hudson's Bay, intersect the country in different directions, but are not lofty. Yet much of the surface is rugged and broken.

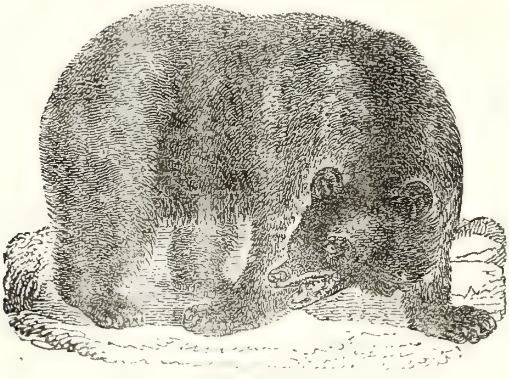
3. *Vegetation.* An account of the scanty vegetation of these dreary regions has already been given under the head of North America. That of the northern parts is similar to that of Siberia and Lapland, while in the more southern portions, the vegetable productions become indentical with those of the United States.

4. *Animals.* The polar bear, the wolverine, the musk-ox, the reindeer or cariboo, the ermine, the polar hare, and the Arctic fox, have the most northern haunts among quadrupeds. The barren ground-bear, the otter, the beaver, the musquash, leming, Parry's marmot, vison, wolf, and hare Indian dog, are also found in high northern latitudes. The black bear, the grisly bear, the moose, the silver fox, the Rocky Mountain sheep and goat, the lynx, pekan, pine marten, long-tailed and black-tailed deer, bison, wapiti, various squirrels, and most of the marmots, and the jumping mouse, are met with further south. The birds are mostly the same with those of the United States, many of which have their summer haunts in these wild regions. Vast flocks of the different sorts of geese, ducks, and gulls, &c., common to Arctic Europe, are spread over the whole tract. The pied duck, one of the most elegant of that family is truly an Arctic bird, and the Eider duck is confined to the northern latitudes. The frozen seas of the Arctic regions are thronged with animals, which are covered with a thick coating of fat, to screen them from the intense and lasting cold of these icy waters. Here the huge whale, the narwhal, the walrus, or morse, and various kinds of seal, whose haunts would seem to be safe from the all-grasping hand of man, are made to give up their oil, their ivory, or skins for his use.

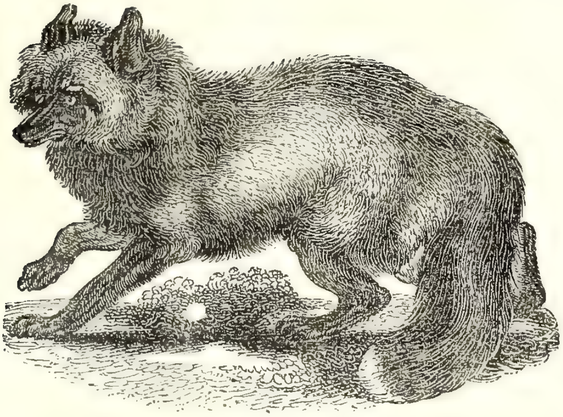
Polar Bear.



Beaver.

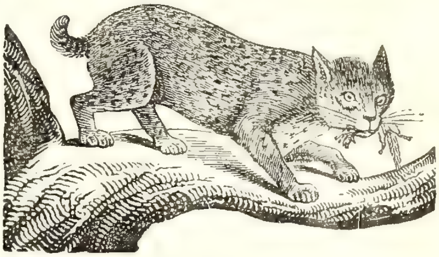


Black Bear.

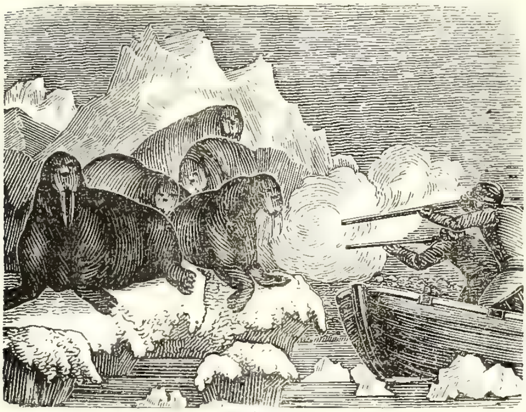


Silver Fox.

Jumping Mouse



Lynx.



Walrus.

5. ***Inhabitants.*** The inhabitants of the British possessions, like those of our Western States, are much diversified by emigration. They are principally composed of Americans, French, English, Scotch, Irish, Germans, and Dutch. The Indians are of various tribes and will be described separately. The French Canadians live chiefly in a line of settlements on the north of the St. Lawrence, between Quebec and Montreal. In complexion they are as swarthy as Portuguese.

6. *Dress.* This is generally the same as in the United States, except that in winter furs are more worn. The clothes are impenetrable to cold, and the caps cover the face, neck, and ears, leaving exposed only the nose and eyes. A gray *capot*, reaching to the knee and girded by a sash of gay colors, is the characteristic costume of the country. The *habitans*, or occupiers of land, wear a straw hat in summer, and in winter a woolen or fur cap; the moccasins are made of sole leather, and the dress of the females of this class is that of a French peasant.

7. *Languages.* The languages are chiefly the French and English, and law processes are sometimes served in both. Not a fifth of the inhabitants of Lower Canada speak English.

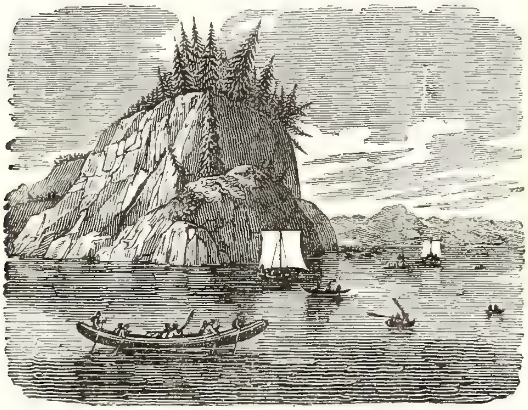
8. *Manner of Building.* The houses are generally of one story, small, but comfortable, and in the country surrounded with garden plats, which are not, however, kept in the best condition. Some of the roofs are covered with tin. In winter the rooms are heated by stoves to a high temperature, and the Canadian will, without suffering, quit a room heated to 90° of Fahrenheit for an external cold of 30° below zero.

9. *Food.* The people are as bountifully supplied with all the common articles of food as those of the United States, and they are generally the same. At the commencement of winter the swine and poultry are killed and placed in garrets, &c. where they are frozen, and thus preserved till spring, and in winter the markets are well stocked; for this is the season when the roads offer the greatest facilities of communication. The usual spirituous liquors are rum, and the others which are common in the United States, and the consumption is considerable, though there is not much habitual intemperance, unless among the "rafters," &c.

10. *Diseases.* The diseases are generally the same with those that prevail in the New England States.

11. *Traveling.* The great chain of communication is on the lakes, and the river St. Law-

rence. On the river, there are steamboats, and where they cannot ply, long pirogues, which are not unattended with danger. The taverns are not distinguished for accommodations, but the people are so hospitable, that a traveler is generally welcome at a private house. Winter is the season when there is the most traveling, for pleasure or business. The provisions and products of farms are then carried to market on sledges or carioles, which are small sleighs, and generally drawn by the small but spirited Canadian horses, at a rapid rate. In the unsettled parts, dog-sledges are used for traveling in winter, and travelers pass the night in the woods, where they kindle fires and cook their provisions.



Slave Lake.

Travelers resting at Night.

12. *Character, Manners, &c.* The character of the people of Canada is as much mixed as that of the United States. There are many elements, that it is the work of time only to mingle in one mass. The French Canadians, however, form a separate society, marked with its own peculiarities. They are volatile, social, cheerful, and hospitable to a great degree. They seldom remove from the neighborhood in which they were born, where they prefer to live for the sake of the society, that has more charms for them than wider patrimonies. Several generations often live under one roof. There is among them, as well as throughout Canada, great equality in property. Sunday is the great fête on which the French make their display ; though in the long winter, every day seems devoted to amusement. Dinner-parties are constantly held, and no sooner is the cloth removed, than the sound of the violin summons all to the dance. Among the French and some of the other inhabitants it is common to see females laboring in the fields or gardens, bronzed by the sun, while in the United States, a woman is seldom seen thus employed, or even standing long in the sun without the defence of a sun-bonnet. Many of the Canadian females, therefore, though handsome while young, soon become coarse and masculine. There are few crimes committed in Canada ; few personal disputes that are settled by blows ; and property is so safe, that it is not a general practice to fasten the doors at night The most reckless class are the rafters, who float timber down the streams when they are first open in spring. Their employment compels them sometimes to stand in water for a day at a time, and no one ever saw an aged raftsman. Health is soon sacrificed, and it has grown into a common saying, that a raftsman has, at the end of summer, "a ruined constitution, spendthrift habits, a blue pair of trowsers, and an umbrella."

13. *Amusements.* The chief amusements are in winter ; the principal one, which is pursued with great spirit, is to ride fast in carioles. One family has sometimes several of these. Dancing is a favorite amusement, and is more general among the common people than in the United States. Spearing fish by torch-light is one of the most attractive of the active sports of the Canadians.

14. *Education.* The means of education are very limited ; comparatively few of the natives can read and write, and the remark applies to some of the members of the House of Assembly. Among the French, more females than men can read. The arts and sciences are not, of course, in a flourishing condition.

15 *Religion.* All creeds have unlimited toleration, though the Catholics are the most numerous. The Jesuits were formerly wealthy. In both Canadas there are about 20 clergyman of the English church. There are Presbyterians, and divers other sects.

16. *Indians.* These are so similar to those in the Territories of the United States, that a detailed account of them is unnecessary. The Hurons live north of the lake of that name, and the Mohawks and a remnant of the Six Nations, dwell about the river Ouse. The Mississaugus inhabit the sources of the river Credit, and the once formidable Iroquois are generally settled on the banks of the Ottawa. Not far from Montreal, is an Indian village of 1,200 inhabitants, a tribe of the Iroquois. They profess the Catholic faith ; and there are some hamlets of converted Hurons near Quebec. There are near the settlements other inconsiderable tribes.

The following table shows the number of the Christian Indians, or those who reside within the limits of the provinces, near and generally surrounded by the settlements of the whites. But few of these have the aboriginal blood pure in their veins, and most of them have lost the knowledge of their native tongue, using the French or English instead of it : —

Bands.	*No.*
Hurons of Lorette	180
Algonquins of Three Rivers	82
“ of Becancour	96
“ of the St. Francis	363
Iroquois of Caughnawaga	967
“ of St. Regis	348
“ of the Lake of the Two Mountains	282
Algonquins	355
Nipissings	250
Total	2,923

The most numerous tribes, however, are those which dwell far from the whites ; and these are principally the Chippiwyans (of the same stock with the Chippeways in the United States), and the Knisteneaux or Crees. The Knisteneaux inhabit a wide extent of territory, and their language is that of the tribes which border on the Atlantic. They are a well formed race, and their women are the handsomest of all the Indian females. These tribes paint their faces, and they are more cleanly than other Indians. They are hospitable, generous, and mild, when not infuriated by spirits. They do not, however, consider chastity as a virtue, but they are not unkind to their women. They are vain and boastful, not much regarding truth ; but strict in regard to the rights of property. They are so honest, that at the trading-posts they are allowed to enter every apartment without restraint. They are unbounded in hospitality, and although they often suffer from famine, every one in an encampment is free to share the food of a successful hunter. They do not follow gaming with the destructive ardor that characterizes many tribes. The women possess considerable influence, and both sexes are exceedingly fond of their children ; if the mother, more hasty in her temper, sometimes bestows a blow on a disobedient child, her heart is immediately softened by the roar which follows, and she mingles her tears with those that streak the smoky face of her darling. Tattooing is universal among the Crees, and the operation is very painful. Their chief remedies for disease are conjurations, and the sweating-baths. They believe in a good spirit and an evil one, and have, like many rude tribes, a tradition of the deluge. They sometimes vow to abstain from particular kinds of food for a limited time, to walk on all-fours a certain number of days, or undergo other ridiculous penances.

The Assiniboin or Stone Indians, are a tribe of Sioux. They rear many horses, and subsist chiefly on the buffalo. The Stone Indians are habitually treacherous, though their appearance is prepossessing. Their eyes are large and expressive, nose aquiline, and forehead bold. A profusion of black hair hangs over the ears, and shades the face. The dress is neat and convenient, consisting of a vest and trowsers of leather, and a buffalo robe. These Indians steal whatever they can, particularly horses. The Slave Indians live further west, and though at war with the Stone Indians, resemble them. Both races are desperate and daring. The Chippiwyans are a widely-spread race, divided into many tribes. They are repulsive in their appearance, having wide nostrils, broad faces, and high cheek bones. They are sullen and selfish, never giving or receiving with a good grace. A stranger may go hungry from their lodges, unless he thrusts his knife uninvited into the food. They are not, however, dishonest, and theft is rare among them. In the most of these tribes the lot of females is grievous, and some mothers have been known to destroy their female offspring, that it might escape the same servitude. Aged and sick people are abandoned to perish. Their disputes are generally settled by wrestling ; and the victor of a match which he may himself provoke, may carry off the wife of the vanquished. The Copper Indians, the Dog-ribs, the Hare Indians, the Quarrellers, the Beavers, &c., are all tribes of the same race, living at the northward. Between the Northern Indians and the Esquimaux, there has generally been a savage and irreconcilable war.

17. *History.* The portion of the American continent first seen by Europeans seems to have been early visited by the Scandinavian colonists of Greenland; it was the coast of Labrador, re-discovered by Cabot in 1497. Verazzani afterwards visited the shores of the present British Territories in the service of France, in 1524, and Cartier first penetrated into the gulf and river of St. Lawrence in 1534, and the following year. In 1610 Champlain ascended as far as the upper lakes, and at the same time Hudson entered the great bay that bears his name. Soon afterwards the country now forming the Canadas took the name of New France, that portion of the Provinces on the Atlantic having been previously occupied by the French, under the name of Acadie; yet in 1621 the latter was granted by King James the First of England, under the name of Nova Scotia or New Scotland. Repeated wars between England and France also involved the British and French colonies on this side of the water in hostilities, but in 1763 New France and Acadie were finally ceded to Great Britain, and the French power in this quarter was thus annihilated. New Brunswick was separated from Nova Scotia in 1784, and in 1791 the Province of Quebec was divided into the two provinces of Upper and Lower Canada. In 1812–14, a war between the United States and Great Britain led to several invasions of Canada by the former. In 1837 numerous risings took place in the Canadas against the constituted authorities, but the spirit of revolt was checked by the British troops, and the constitutions of the two provinces were declared by the British government to be suspended. A union of the two provinces with a new constitution, so as to throw the local legislation into the hands of the British population, seems now to be the intention of the mother country.

CHAPTER XLII. UPPER CANADA.

1. *Boundaries and Divisions.* Upper Canada, a colony of Great Britain, is bounded on the N. and W. by New Britain, E. by Lower Canada, from which it is in part separated by the river Ottawa, and S. by the United States, from which it is separated by the great lakes. Its northern and western limits are undefined. It is divided into 25 counties, which are subdivided into townships, and contains a population of 300,000.

2. *Face of the Country, Climate, and Soil.* The surface presents an almost unbroken level, with a fertile soil, and a mild and healthy climate.

3. *Rivers and Lakes.* The *Ottawa* and *St. Lawrence*, with the great lakes, wash its borders, and afford important advantages for trade. The *Thames*, flowing into Lake St. Clair, and the *Ouse*, into Lake Erie, are the principal rivers within its limits. The river *Niagara*, which separates New York from Upper Canada, is the outlet of Lake Erie, and discharges its waters into Lake Ontario after a course of 36 miles. The whole descent, from the level of Lake Erie to that of Lake Ontario, is 330 feet. Grand Isle, or Ararat, an island 12 miles in length by 7 in breadth, divides its channel for some distance, but below that island the waters are again united. Here they become broken by rapids, for the distance of nearly a mile, and at length are precipitated over a ledge of rocks, 165 feet high, forming the celebrated falls of Niagara, which have already been described. Lakes *Nipissing* and *Simcoe* are considerable sheets of water.

4. *Towns.* The capital is *Toronto*, lately *York*, on Lake Ontario, with 10,000 inhabitants. Its harbor is shallow, and the country around is barren. *Kingston*, on the same lake, is the next largest town of Upper Canada. It is agreeably situated, and well built, containing several public edifices, and about 5,000 inhabitants. The harbor is excellent, and ships of the line can come close to the shore. It has a flourishing trade, and in summer the port is crowded with the various kinds of lake and river craft. The English government has a dock-yard here. There is a great number of thriving villages in Upper Canada, which though lately built in the midst of the wilderness, contain from 1,000 to 1,500 inhabitants. *Bytown* on the Ottawa, is connected with Hull in Lower Canada, by a fine bridge of 11 arches, and 800 feet in length; *Brockville* and *Prescot* are on the St. Lawrence; *Dundas* and *Hamilton* are rapidly increasing villages, at the west end of Lake Ontario. *London*, on the Thames, is a flourishing town with 2,000 inhabitants. *Goderich*, recently built on Lake Huron, is the most western settlement. *Niagara*, *Queenstown*, and *Chippewa*, small towns on the river Niagara, became the scene of

military operations during the war of 1812–14. *Sherbrooke*, at the mouth of the Ouse, *Malden* and *Amherstburg* are the principal places on Lake Erie.

5. *Canals. Rideau Canal*, from Kingston to Bytown, affords a navigation by rivers and lakes of 160 miles, with an actual excavation of but 20 miles. It has 47 locks, with a total lockage of 437 feet. *Welland Canal*, connecting lakes Erie and Ontario, is 41 miles in length, and sufficiently wide and deep to admit vessels of 120 tons. It overcomes the fall of Niagara by 37 locks; summit level 330 feet. A canal has been projected to unite the Thames at Chatham with Lake Erie.

6. *Inhabitants. Government.* Upper Canada is peopled almost entirely by Irish and Scotch emigrants; there are also many English, and some settlers from the United States. The executive administration is vested in a Lieutenant-Governor, with an executive council. The legislature or Provincial Parliament is composed of a legislative council, and a House of Assembly; the latter is chosen by the counties and the 3 towns of Kingston, Toronto, and Niagara. The executive officers and members of the legislative council are appointed by the king of Great Britain.

7. *Education. Religion.* About one fourth of the inhabitants are Roman Catholics; the rest are principally Presbyterians, Baptists, and Methodists. There are but few Episcopalians, yet the reservation of one seventh part of each township for the support of the Protestant clergy, has been appropriated exclusively for their use. There is a university, called *King's College*, and another seminary, called the *College of Upper Canada*, has lately been founded. Grammar and elementary schools have been established, and have received pecuniary aid from the provincial legislature.

CHAPTER XLIII. LOWER CANADA.

1. *Boundaries and Divisions.* The British province of Lower Canada lies on both sides of the St. Lawrence, having the Gulf of St. Lawrence on the E.; New Brunswick and the United States on the S.; and Upper Canada on the W. Its northern limits are undefined. It is divided into 40 counties, which are subdivided into seigniories and townships. The population is about 600,000.

2. *Rivers.* The principal river is the *St. Lawrence*, which, issuing from Lake Ontario, falls into the Gulf of St. Lawrence, after a course of 800 miles. Considering its head waters to be the streams which flow from the central table-land of North America into Lake Superior, and the great chain of lakes, with their outlets, the rivers St. Mary, Detroit, and Niagara, to be parts of this river, the St. Lawrence has a course of about 2,500 miles, and in point of depth, width, and volume of waters, is one of the principal rivers of the world. Below Lake Ontario it expands successively into the lake of the Thousand Isles, lake St. Francis, and lake St. Peter. It is navigable for ships of the line to Quebec, 400 miles, and for the largest merchant ships to Montreal, 180 miles further; the tide flows up about 500 miles. The other rivers of Lower Canada are its tributaries; on the north are the *Ottawa* or *Uttawa*, and the *Saguenay*, large navigable rivers, flowing through a region little known; the former is supposed to have a course of 1,000 or 1,200 miles, but its navigation is much interrupted by rapids. The Saguenay is remarkable for its depth, and is navigable for 90 miles to its falls; — for about 50 miles it has the appearance of a long mountain-lake, and the scenery around is wild and magnificent. At its junction with the St. Lawrence it is 840 feet in depth, being 600 feet deeper than the latter river. The *St. Maurice* is also a considerable stream from the north, and the *Montmorenci*, which falls into the St. Lawrence at Quebec, is celebrated for its cataract, which is 240 feet in height, and which, when the river is full, pours a large volume of water over its precipitous bank. On the south the principal tributaries are the *Sorel* or *Richelieu*, the outlet of Lake Champlain, the *Chaudiere*, with a beautiful cascade rushing down a precipice 100 feet in height, and the St. Francis.

3. *Soil and Climate.* The winters are long and severe; the thermometer often falling to 40° below zero. The heat is intense for a short time in summer. The air is pure, clear, and healthy. The country on the south of the St. Lawrence is mountainous, and chiefly covered with forests; to the north the surface is also in general broken and rugged, and rising by successive banks, called steps or ramps, into an elevated table-land; little is known of the interior. The soil along the rivers is fertile, and the productions are similar to those of the northern part of the United States.

4. *Canals.* *Lachine Canal*, above Montreal, avoids a bend and rapids in the St. Lawrence ; length 9 miles. *Granville Canal* passes round rapids in the Ottawa ; 12 miles in length. There are several other similar side cuts on the St. Lawrence above Montreal.

5. *Towns.* *Quebec*, the capital of Lower Canada, lies on the northern bank of the St Lawrence, which is here but half a mile wide, although it is several miles in width above and below the city. Below is the harbor, which lies between Quebec and the Isle of Orleans, and is 5 miles long, by 4 wide. The city is divided into the Upper and Lower City. The latter, the seat of business, has narrow, steep, and dirty streets, crowded with old and mean buildings. From this you ascend by a winding street, or by a long flight of stairs to the Upper City, which is built on a lofty promontory, about 300 feet above the river. The streets of the Upper City are narrow, but clean and well paved, and the public and private buildings are neat. Quebec is styled the Gibraltar of America, its military works being deemed impregnable. It is surrounded with walls, and the citadel on Cape Diamond, which rises abruptly from the water to the height of 340 feet, is a work of great strength. In front of the citadel are the Plains of Abraham. There is a garrison stationed here. Quebec contains about 30,000 inhabitants, two thirds of whom are Canadian French, and has an active and extensive commerce. The most remarkable buildings are the château or castle of St. Louis, which is the residence of the Governor ; the Provincial Parliament house ; a Catholic Cathedral, a large and splendid edifice ; a Protestant Cathedral ; the barracks, formerly the Jesuit's College ; the arsenal or armory ; 3 nunneries, &c. There are also here a French College, and other institutions of education. In the vicinity is the little hamlet of Loretto, inhabited by the miserable remnant of the once powerful Iroquois, and on the opposite shore stands Point Levi, near the falls of the Chaudiere. The view from Cape Diamond is celebrated for its grandeur and beauty.

Montreal, 180 miles above Quebec, stands on an island of the same name, in the St. Lawrence, near a hill about 800 feet high, from which it derives its name. Its population, including the suburbs, is estimated to exceed 40,000 souls, and it is a place of great trade. The streets in general are narrow, and the houses mean ; but the upper or modern part of the city has some handsome buildings. The most remarkable structure is the Catholic Cathedral, built in 1829, which is the most splendid temple in British America. It is 255 feet in length, 234 in breadth, and 112 high, with 6 towers, and 7 altars, and can accommodate 10,000 persons. Three nunneries, the French College, the University of Macgill College, the Government House, the Barracks, the General Hospital, and the Catholic Seminary, also deserve mention.

Three Rivers below Montreal, and *Lachine* above it, on the St. Lawrence, and *Hull* opposite Bytown on the Ottawa, are flourishing commercial towns. *St. Ann's* is a pretty village at the mouth of the Ottawa. *Kamouraski*, on the St. Lawrence, is a favorite bathing place.

6. *Government and Laws.* The executive authority is vested in a Governor, who is also Captain-General of British America, and an executive council. The provincial parliament is composed of two branches, styled the Legislative Council, the members of which are appointed for life, and the House of Assembly, elected by the freeholders. The executive and judicial officers, and the members of the councils are appointed by the crown of England. The laws are principally the old French Customs, somewhat modified by English legislation. The tenure of land in the seigniories is feudal. The seigniories consist of tracts of land, granted by the French Kings, with certain feudal privileges to the possessors, styled seigneurs, or lords, who, in turn, granted smaller parcels to tenants, or *habitans*, who pay certain services and rents to their lord.

7. *Inhabitants.* The inhabitants are mostly of French descent, and the French is the prevalent language. The Canadian French peasantry, or *habitans*, are frugal, honest, polite, and hospitable, but deficient in enterprise. They are attached to old customs, reverence their priests, thank the saints and the blessed Virgin with great piety, and are gay and contented. They are, however, generally ignorant, and their mode of agriculture is clumsy. The *voyageurs* or boatmen are hardy and skilful in the often dangerous navigation of the rapid and broken rivers, and endure great privations with unyielding cheerfulness, enlivening their long and perilous voyages with rude songs. The *Coureurs du Bois*, are a race of hunters and trappers, who have in many respects adopted the manners and habits of the Indians, passing their whole lives in the unsettled fur regions. The *Bois Brulés* are half-breeds descended from the *Coureurs du Bois* and Indian women ; they are mere savages in their dispositions and

mode of life, which is passed far beyond the restraints of religion and society. The Indians are still numerous in the Canadas.

8. *Education and Religion.* The inhabitants are chiefly Roman Catholics. That sect has several colleges and seminaries, in which an elementary or classical education may be obtained, and numerous elementary schools have been established.

CHAPTER XLIV. NEW BRUNSWICK.

1. *Boundaries and Divisions.* The British province of New Brunswick is bounded N. by Lower Canada, from which it is separated by the River Restigouche and the Bay of Chaleur; E. by the Gulf of St. Lawrence; S. by Nova Scotia and the Bay of Fundy, and W. by Maine. Area, 28,000 square miles. It is divided into 10 counties, and is but thinly inhabited, having a population of 110,000 souls. The interior is inhabited by Indians, and is mostly unexplored, the settlements being chiefly on the St. John, the Miramichi, and the Gulf of St. Lawrence.

2. *Soil and Face of the Country.* The surface is mostly broken and uneven, but not mountainous. There is much fertile soil on the rivers, consisting of alluvial or interval lands, and most of the country is covered with a dense forest.

3. *Rivers.* The river *St. John* rises in the northeastern part of Maine, and traversing the northern part of that State, enters New Brunswick, through which it flows southeasterly into the Bay of Fundy. It is navigable for sloops to Frederickton, 80 miles, and for boats, 200 miles, although its course is much broken by falls and rapids. Just above its mouth are falls, which can be passed only at high tide, and soon after entering New Brunswick, the whole body of the river plunges over a precipice of rocks 75 feet in height, exhibiting a scene of great grandeur. The *St. Francis*, a small branch from the north, forms the boundary line between Maine and Lower Canada, proposed by the King of Holland. The *Miramichi*, which flows into the Gulf of St. Lawrence, is navigable for sea-vessels about 40 miles.

4. *Bays.* The coast on the Gulf of St. Lawrence is sandy, and most of the harbors are obstructed by bars. The *Bay of Chaleur* is 80 miles in length, and from 15 to 30 in breadth, and contains some good harbors. On the south are the fine *Bay of Passamaquoddy*, and the *Bay of Fundy*. The latter is 200 miles in length, and about 40 in breadth, and is remarkable for the great and rapid rise of its tides, which attain the height of 70 feet. The islands of Campobello and Grand Menan lie at the entrance of the bay.

5. *Towns.* The principal town is the city of *St. John*, at the mouth of the river of the same name, with 12,000 inhabitants. It has a good harbor, and a number of public buildings, among which are several churches. The streets are irregular and steep. *Fredericton*, on the St. John, is the seat of government. It has 2,000 inhabitants, and contains government buildings, and the college of New Brunswick. *New Castle*, on the Miramichi, is noted for its lumber trade and ship-building. *St. Andrews* is a thriving town with a brisk trade, at the mouth of the St. Croix. It is pleasantly situated, and has a good harbor, the entrance of which, however, is obstructed by a bar. Population, 3,000.

6. *Government.* The chief executive officer, styled Lieutenant-Governor, is appointed by the crown, and there is a provincial legislature, consisting of a council and a legislative assembly

CHAPTER XLV. NOVA SCOTIA.

1. *Boundaries and Divisions.* Having the Bay of Fundy on the N., the Gulf of St. Lawrence on the E., and the Atlantic Ocean on the S. and W., Nova Scotia forms a peninsula joined to the mainland by a narrow neck, about 10 miles in width. Including the Island of Cape Breton, it is divided into 12 counties, with 185,000 inhabitants. The peninsula has a surface of 16,000 square miles.

2. *Soil, Face of the Country, and Climate.* A great proportion of the soil is fertile and well adapted to grazing or tillage. The surface is uneven, and in some parts rugged and hilly, but nowhere rises above 800 feet. The climate is healthy; the cold is severe, but the air is dry except in some particular exposures. On the Atlantic coasts disagreeable sea-fogs prevail.

3. *Rivers and Bays.* There are no rivers of much extent; the *Annapolis*, emptying itself

into the *Bay of Fundy* is the principal, and has a course of 60 miles. There is a very great number of excellent harbors. *Chedabucto* and *Mahone Bays*, and the basins of Mines and Cumberland, running up from the Bay of Fundy, are the chief bays.

4. *Islands.* The *Isle of Cape Breton*, separated from the mainland by the Gut of Canseau, is about 100 miles long, by from 30 to 80 broad, and contains about 500,000 acres of arable land. It sustains a population of 25,000 inhabitants, and has some excellent harbors. *Sable Island*, to the southeast of Nova Scotia, is a dangerous bank of sand, on the track of vessels sailing between Europe and North America.

5. *Minerals.* Gypsum or plaster of Paris, limestone, iron, and bituminous coal, are found in Nova Scotia.

6. *Canals.* The *Shubenacadie Canal* extends across the peninsula, from the harbor of Halifax to the Bason of Mines, 54 miles, and it is proposed to cut a canal across the isthmus from Cumberland Basin to Verte Bay, 11 miles.

7. *Towns.* *Halifax*, the capital, stands on Chebucto Bay, with a fine harbor, safe, capacious, and easy of access. It is regularly built on rising ground, with wide, straight streets, and contains several government buildings, a dock-yard or navy-yard, and 10,000 inhabitants. The Government House, or residence of the Lieutenant-Governor, the province building, a handsome edifice of the Ionic order, containing the legislative halls and public offices, 8 churches, Dalhousie College, &c., are the principal public buildings. Several English regiments are stationed here, and there are generally some ships of war in the harbor. It is the centre of a profitable fishery and a thriving trade. *Dartmouth*, a little village, lies opposite to Halifax.

Lunenburg, with 1,200 inhabitants, chiefly Germans, and *Liverpool*, a flourishing trading town, with 1,800 inhabitants, lie southwest of Halifax. On the northern coast are *Annapolis*, formerly Port Royal, an old French settlement ; *Digby*, famous for its red herrings ; and *Windsor*, containing the University of King's College, and a collegiate school. *Pictou*, on the Gulf of St. Lawrence, with an excellent harbor, is a busy town in the coal region. Pictou College is a respectable seminary. On the Island of Cape Breton are *Sydney*, which has derived some importance from its coal trade, and the ruins of Louisburg, once a formidable French fortress, captured by the Americans and English in 1745, and a second time by the English in 1758, when its works were demolished. *Louisburg* formerly contained about 5,000 inhabitants, but is now reduced to a few fishing huts. *Arichat*, on Madam Island, between Cape Breton and Nova Scotia, has 2,000 inhabitants.

8. *Government.* The chief executive officer is styled Lieutenant-Governor, and there is a council, appointed by the crown, which is at once an executive council and a legislative body. The other legislative house, called the Assembly, is chosen by the freeholders.

9. *Inhabitants.* Nova Scotia originally belonged to France, and was then called Acadia. The Acadian French, Scotch, and Irish, are the most numerous classes ; there are also many English, refugee loyalists from the United States, or their descendants, some Germans, and about 3,000 negroes. One third of the inhabitants are Roman Catholics, about one fourth Presbyterians, nearly as many Episcopalians, and there are great numbers of Methodists and Baptists.

CHAPTER XLVI. PRINCE EDWARD'S ISLAND.

Prince Edward's Island, in the Gulf of St. Lawrence, is separated from Nova Scotia, by Northumberland Strait, 9 miles in width. It is 140 miles in length by from 15 to 30 in breadth, having an area of 2,000 square miles, and containing 35,000 inhabitants. It is divided into 3 counties, which are subdivided into 67 townships. The capital, *Charlottetown*, has an excellent harbor, at the junction of the rivers York, Elliot, and Hillsborough, which empty their united waters into Hillsborough Bay. Population, 3,500. The climate of the island is mild, dry, and healthy, and the soil fertile ; the shores abound with fish. The inhabitants are chiefly Scotch, with many Irish and Acadian French. The local government is like that of Nova Scotia.

CHAPTER XLVII. NEWFOUNDLAND.

1. *Extent, Population.* This island is separated from the continent by the Straits of Bellisle and the Gulf of St. Lawrence. It is 380 miles in length, and from 50 to 300 in breadth,

with an area of 36,000 square miles, and is on all sides indented with spacious bays, forming a great number of harbors. Its interior is little known, having been but recently traversed, and a great proportion has never been visited by the whites. The surface is described as generally level, or moderately uneven, with a good soil, and a mild climate, the winter being less severe than in the same latitude on the continent. The inhabitants are entirely occupied in trade and fishing; the cod fishery is prosecuted on the coasts and on the Labrador shores, and the seal fishery has been lately undertaken and carried on with great boldness and activity, on the ice-bergs or floating mountains of ice, which are brought down from the north by the ocean currents. About 500 vessels and 10,000 men are engaged in the seal fishery, and 25,000 men in the cod fishery. The island has a separate government, with a provincial legislature, like the other British provinces. Population, 85,000. The western coast and the interior are uninhabited.

2. *Towns*. *St. John's*, the capital, lies on a bay of the same name, and has a fine harbor. The streets are narrow and dirty, and the houses mean. It contains a Government House, 4 churches, and 12,000 inhabitants. *Harbor Grace*, on Conception Bay, is a fishing-village, with about 4,000 inhabitants, and contains 4 churches.

The uninhabited island of *Anticosti* in the Gulf of St. Lawrence, and the Labrador coast, are dependencies of the government of Newfoundland. *St. Pierre* or *Peter's* and *Miquelon* are two small islands near the southern coast, belonging to France.

3. *Grand Banks*. The *Great Bank of Newfoundland*, to the southeast of Newfoundland, is the most extensive submarine elevation known. It is 600 miles in length, and 200 in some parts in breadth, and appears to be a solid mass of rock. The soundings vary from 4 to 10, 30, and 100 fathoms. The *Outer Bank*, or *Flemish Cape*, appears to be a continuation of the Grand Bank. These banks form a well-known fishing ground. The perpetual fogs which hover over them, and which also cover the coasts of Newfoundland and Cape Breton, are produced by the meeting of the cold waters of the north with the warm waters of the Gulf Stream.

CHAPTER XLVIII. NEW BRITAIN, OR HUDSON'S BAY COMPANY'S TERRITORIES.

1. *Boundaries and Extent*. To the north of the provinces already described, and stretching from the Rocky Mountains or the Pacific Ocean on the west, to the Atlantic Ocean on the east, lies a vast tract, belonging to Great Britain, and sometimes called New Britain. Hudson's Bay makes up far inland from the north, forming a large peninsula, of which the eastern coast is called Labrador, and the western, East Main, from its position in regard to the bay An extensive tract, west of the bay, has received the name of New South Wales, or Western Main. A great part of New Britain consists of immense forests, while the western portion is composed of wide, desolate plains, destitute of wood, except on the borders of the rivers.

2. *Rivers and Lakes*. The *Saskachawan*, rising in the Rocky Mountains, flows easterly through Lake Winnipeg, and, taking the name of *Nelson*, runs into Hudson's Bay. The *Mackenzie* or *Peace River*, also rises in the Rocky Mountains, and, pursuing a northerly course, passes through Lake Athapesco and Great Slave Lake, into the Arctic Ocean. It is 2,500 miles in length, and much of the country on its banks is covered with a rich vegetation. *Coppermine River* rises near Slave Lake, and flows through a barren region into the Arctic Ocean. *Thleweechoo* or *Great Fish River* flows northeast into an unexplored gulf. The lakes are among the largest in the world, and seem to be innumerable. The *Winnipeg*, *Athapesco*, *Great Slave Lake*, and *Great Bear Lake*, are the principal.

3. *Inhabitants*. This region is thinly peopled by small tribes of Indians, who rather roam from district to district, than occupy any fixed tract. They live by hunting and fishing, and present a degraded picture of humanity. The northern coasts are inhabited by Esquimaux tribes. On the coast of Labrador, there are several Moravian missions, the principal of which is Nain. The Hudson's Bay Fur Company has factories and posts scattered at great distances through the fur countries.

4. *Islands*. The whole of the coast on the Arctic Ocean has not been examined by whites. The northeastern termination of the continent is in 74° N. latitude. The name of Boothia has recently been given to an extensive tract here. West from Baffin's Bay, stretches Barrow's Strait, to an unknown extent, bordered on the north by the *North Georgian Islands*, and to the south by a range of islands separated from the northern coasts of the continent by a wide sea.

5 *Climate.* The climate is remarkably cold, and in the winter intensely severe. At this time wine is frozen into a solid mass, and brandy coagulated into a species of thick oil; the breath is condensed as it leaves the mouth, and, when in bed, forms on the blankets a kind of hoar frost. In winter, the aurora borealis is very frequent.

CHAPTER XLIX. RUSSIAN AMERICA.

This country comprises the northwestern part of the American continent. It is bounded N. by the Arctic Ocean, E. by the British possessions, S. by Oregon Territory and the Pacific Ocean, and W. by the Pacific and Behring's Straits. This district is generally of a very alpine and sterile character. The celebrated mountain of St. Elias, on the shore of the Pacific, is probably a volcanic peak, and is calculated to be 17,850 feet above the level of the sea. La Perouse estimated the range of mountains which terminates at Cross Sound, to be upwards of 10,000 feet in height. The primitive mountains of granite or slate, in some places rise immediately from the sea, and have their summits constantly covered with snow.

The general appearance of this region is thus vividly described by Malte Brun: "Above a range of hills covered with pines and birch, rise naked mountains, crowned with enormous masses of ice, which often detach themselves, and roll down with a dreadful noise into the valleys below, which they entirely fill up, or into the rivers and bays, where, remaining without melting, they rise in banks of crystal. When such a mass falls, the crashing forests are torn up by the roots, and scattered to a distance; the echoes resound along the shores with the noise of thunder; the sea rises up in foam, ships experience a violent concussion, and the affrighted navigator witnesses, almost in the middle of the sea, a renewal of those terrific scenes which sometimes spread such devastation in alpine regions. Between the foot of these mountains and the sea, there extends a strip of low land, the soil of which is almost everywhere a black and marshy earth. This ground is only calculated for producing coarse though numerous mosses, very short grass, *vaccinias*, and some other little plants. Some of these marshes, hanging on the side of the hills, retain the water like a sponge, while their verdure makes them appear like solid ground; but in attempting to pass them, the traveler sinks up to the mid-leg. Nevertheless, the pine tree acquires a great size upon these gloomy rocks. Next to the fir, the most common species is that of the alder. In many places nothing is to be seen but dwarf trees and shrubs. Upon no coast with which we are acquainted, have there been remarked such rapid encroachments of the sea upon the land. The trunks of trees, that had been cut down by European navigators, have been found and recognised, after a lapse of 10 years. These trunks are found sunk in the water, with the earth which supported them." The inhabitants of the districts towards the north, are Esquimaux. There are only about 1,000 Russians in the country, who are engaged in the fur trade with the natives. Their principal settlement is *Sitka*, at the entrance of Norfolk Sound. There are establishments at ***Kodiac***, and at ***Illuluk***, on the island of Oonalashka.

CHAPTER L. THE ESQUIMAUX.

This race of people, which is spread over nearly the whole of the northern coast of America, differs much in form, manners, and customs from any other tribes of the continent. They resemble more some of the natives of the north of Europe, than the American Indians. In stature they are below the Europeans generally. Those to the northwest of Hudson's Bay, are of a larger size than those of Labrador, but all are dwarfish. Although they are diminutive, they are well-formed and hardy. Their faces are round and full, their eyes small and black, and their noses small, but not much flattened. Some of them seen by Parry had Roman noses, but in others, the cheeks were as prominent as the nose. Their eyes are not horizontal, but the lowest point is nearest the nose. Their teeth are short and regular, and, in the young, very white. Their complexions are clear, and their skins smooth; Captain Parry remarks, that in this respect there is between this people and Europeans, "more shades of dirt than of any other difference." Their hair is black and straight; the men wear it long and loose, but the women, who take pride in it, separate it into two portions, and tie it so that one part hangs over each shoulder. Some of the men wear the beard on the upper lip and chin, and cut the hair on the crown, like the tonsure of a monk. Many of the females and children have pleasing countenances, even after the strictness of the European standard. The old, however, are often exceedingly ugly. The Esquimaux are of the same origin with the Greenlanders, but between them and the Indians, there is a wide difference in disposition, manners, and customs.

Esquimaux Indians.

1. *Dress.* The dress, like that of most rude people, without foreign intercourse, is of skins, and has little variety of form. The garments are so full as to disguise the figure, and make the wearer appear shorter than he really is. The jacket, which is close all round, comes to the hips, and the sleeves reach to the wrist. The women's jacket has a hood, a long flap behind, and a shorter one before, reaching half way to the knee. The jackets of the men have also a hood, and a short flap behind, which is buttoned up in hunting seal. In the hood the women often carry a child, and, as they must bend forward to counteract the weight, their stature seems diminished. The whole dress is so loose, that it resembles meal-bags inflated with wind. The children wear fur caps with the ears and noses of the animal, so that, at a distance, they look like the cubs of bears, foxes, &c. In the winter, every one wears in the open air two jackets, with the hair of the under one next to the skin. Two pair of breeches are also worn, reaching to the knee, tied closely round the waist, and overlapped by the jacket. Over the legs and feet there are four or five thick coverings, and no degree of cold can penetrate them. The boots are high, and reach above the breeches. Those of the females are so large as to be grotesque, and make a distorted, ludicrous appearance. In Labrador, the women often carry children in the boots, and elsewhere they use them as pockets. Children have no clothing, but, till three years old, lie naked in their mothers' hoods. All the articles of female dress are prettily ornamented with stripes of different furs, and are very neatly sewed with sinews. Children between 2 and 12 years of age have breeches and boots in one, with braces over the shoulders. All have mittens of fur. Thus clothed, the Esquimaux is a picture of comfort. Of ornaments the most common is a string of teeth (generally of the wolf or fox) worn round the waist; and Captain Parry saw a line of fox's noses attached like a row of buttons to a jacket. No woman is without a tattoo; this is generally on the face and arms, but never, as in Greenland, on the feet. It is made by drawing under the skin a needle, and a thread saturated with lamp-black and oil. Towards the west some tribes have shells and bones thrust through the nose; the under lip is also pierced with two holes for pieces of ivory, as among the Indians of the northwest coast.

2. *Manner of Building.* The houses of the Esquimaux vary in the different tribes; on the shores that have drift-wood the dwellings are of that material. Generally the summer dwellings are tents of skins supported by a single pole in the middle. The entrance is made by two flaps that overlap each other. But in winter the very monuments of the severity of the climate serve as a defence from its rigor; and for many months in the year the natives live under edifices of snow and ice, which are the warmest and firmest when most required to be warm and firm. Towards spring only, they become subject to dripping, and the inhabitants remove to their tents before the houses become insecure. The snow huts are of a regular circular form, and are in fact domes, as completely arched as those of the Pantheon or St Peter. They are erected in a short time; slabs about 6 inches in thickness and 2 feet in length, are cut from the hard compact snow, and laid in a circle of from 8 to 15 feet in diameter. Upon these is laid another tier inclining a little inward, and other layers are successively placed, until nothing remains but the key-stone, which is artfully adapted. The inner edges of the blocks are smoothed off with a knife. The height of the dome is often 10 feet. In constructing it, one man stands within to place the materials, which are supplied by another without. A little water for cement is sometimes poured upon the joints, and it instantly becomes solid ice. The door is cut through the southern side, and the entrance is by a covered way 20 or 30 feet long. When there are more families than one living together, several snow-huts are built round a common dome, and communicate with it by doors. The light is admitted

through a window of clear ice, 4 inches in thickness and 2 feet in diameter; this light is very soft and agreeable, like that which passes through ground glass.

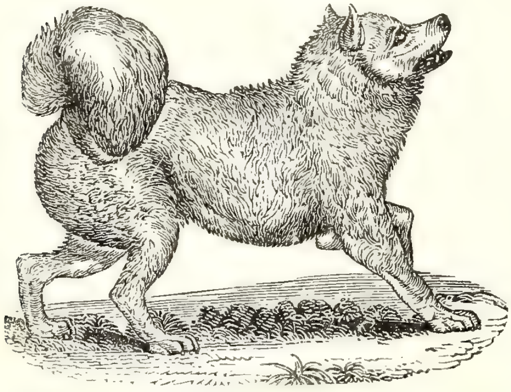
A bank of ice or snow is raised nearly around the whole apartment, and this is the foundation of the beds and fire-places. For the beds this bank is covered with stones, paddles, blades of whalebone, and twigs; over these are spread so many skins that the beds are both warm and dry. The only fire used in this severe climate, is that of a lamp to each family. The lamp is a shallow stone vessel with a wick of dry moss disposed round the edge. The length of this is 18 inches, and when it is all lighted, produces a brilliant light without smoke or scent. It is fed by the drippings of a piece of blubber suspended over it. Around the lamp is suspended a frame which is covered with garments to be dried, for whenever an Esquimaux comes in he takes off his outward jacket and mittens, brushes off the snow, and hangs them by the lamp. The only vessel for cooking is a stone pan, which is suspended over the lamp, and the principal dishes for food are a wooden tray, a cup of the horn of the musk ox, and a vessel made of skins, laced tightly over a frame.

3. *Food.* The Esquimaux is more solicitous for the quantity than for the quality of food. Generally speaking, he eats whatever he can get, though he is the better pleased with offals. He subsists almost entirely on animal food, as fish, the flesh of the seal, walrus, whale deer, reindeer, and musk ox. His supplies are often interrupted by accident, and this makes his life one of alternate gluttony and fasting. In general the Esquimaux prefer to have their food cooked, though they often eat it raw. The nature of their food is oily, yet they never use oil itself as a diet, nor are their flesh or garments covered with oil like those of the Greenlanders.

At meals, the mistress of the house takes with her fingers a large lump of meat, and gives it to her husband, who places no small piece of it between his teeth, cuts it off in that position with a sudden jerk of the knife, and then passes the meat and the knife to his neighbor. To a stranger this seems to be a perilous operation, especially for young children, yet accidents seldom occur. As these people have no means of preserving provisions, they often suffer the extremity of famine. They are not, however, improvident, for they waste nothing, that is to say, there is nothing that they do not eat, yet the quantity consumed is so enormous that they require great supplies. Captain Parry has known them after a long fast to eat diligently for 3 hours, and the quantity consumed was in proportion to the time; he says, that he speaks "within bounds," in stating that a little girl "got through 8 pounds of solids," in a day, and he mentions, that a lad consumed in 20 hours the following things, and did not think the quantity extraordinary. Sea horse flesh frozen, 4 pounds and 4 ounces; do. do. boiled, 4 pounds and 4 ounces; head 1 pound 12 ounces; besides this he swallowed one pint and a half of rich gravy soup, 3 wine glasses of raw spirits, 1 tumbler of strong grog, and 1 gallon 1 pint of water. All the Esquimaux drink large quantities of water, and in winter it is one of the chief employments of the women to melt the clear ice for water.

4. *Diseases.* The most common maladies are consumption, rheumatism, and opthalmia. The means of cure are very limited. They use a kind of spectacles of bone to shade the eyes, in which they look through a narrow orifice.

5. *Traveling.* As the Esquimaux have neither crops nor permanent houses, to bind them to one spot, their life is in some degree migratory, and their facilities for traveling are considerable. They possess a valuable race of dogs, similar to that of the English shepherd's dog, but more muscular and broad.


Esquimaux Dog.

Parry also saw another race of dogs, in size and form so much resembling the wolf that it was not easy to distinguish between them. The dogs are trained to draw the rude sledges that the Esquimaux are able to construct, which are about 2 feet wide and 5 feet long. The runners are sometimes made of the right and left jaw-bone of a whale; but generally of pieces of wood and bone lashed together, with the interstices stuffed with moss, and the whole secured by a coating of ice, held together by the severity of the climate.

The runner is shod with a plate of hard bone, and over this, water is poured to form another coating of ice, and this is renewed as often as it is worn off. The climate is such, that this is an effectual method of shoeing for more than 6 months in 12. The dogs are harnessed by a collar and a single trace, running over their backs. They are not tied to each other, but each one is attached separately to the sledge and at unequal distances, some at 20 feet and others at less than half that distance. The most docile dog is the leader, and his is the longest trace. The dogs do not all draw in the same direction, as the traces of some of them form an angle of 40° with the course of the sledge. The traces often become entangled, especially when a dog passes from one side to the other to avoid the whip. The dog that is struck draws back for an instant, then turns upon his next neighbor, and he upon his, so that a blow upon one seldom fails to produce a general snarling among all. A good leader is very attentive to the words of the conductor, and looks back over his shoulder with great earnestness to catch the word of command. The command to stop is expressed by the same words as in English, *wo* or *woa*; though this order, like all others, depends for execution on the ability of the driver to enforce it. In going homewards, he has no other way to stop the dogs, than by digging with his heels into the ground. Ten dogs make a full team, and will draw a sledge 12 miles an hour, and 9 of them have drawn 1,611 pounds a mile in 9 minutes. Three dogs drew Captain Lyon on a sledge weighing 100 pounds, a mile in 6 minutes. On a good surface, 6 or 7 dogs will perform in a day a journey of 60 miles, with nearly 1,000 weight to draw. When there is no snow, the dogs are made to carry burdens in a kind of panniers, and one of them will travel thus with 25 pounds. They have all names, which they answer to readily, and they are more attached to their masters than gratitude alone would require, for they are never caressed, and they suffer much hard usage.

6. *Character*, *Manners*, *Customs*, &c. Our traits of these people are drawn rather from the state in which they live, remote from European settlements; for, in Labrador, they have lost, by means of intercourse with Europeans, many of their original peculiarities. If it is surprising, that, in Iceland, there should exist, not only an intelligent, but a learned people, it is little less strange, that the Esquimaux, living in a climate of almost constant rigor, finding shelter in rude huts of ice, and having no provision or certainty of supply for the coming day, should yet be one of the most cheerful people on earth, more cheerful than even the African, the native of a sunny climate, and of a country producing spontaneously the best fruits of the earth. They are so fond of dancing, that it seems almost their natural gait, and they are always ready to return raillery or mimicry. Captain Parry always found them playful as children; he feared that some of them "would have gone into fits of delight," when they heard their own names introduced into an English song. A slight present would throw the females into convulsions of laughter, that were often succeeded by weeping. The Esquimaux are, far more than the Indians, a social and domestic people. This is apparent in their good treatment to females, and their care and affection for their children. After a season of famine, when the parents are famishing, the children are always the first supplied with food, and the parents have many of the same endearments and playful ways of amusing their offspring, that are common with us. An Esquimaux never punishes a child, yet the children are almost universally gentle, and well-disposed. In their huts these people are a picture of quiet enjoyment, though neatness is not one of their good qualities. It is a pleasure to them to entertain a stranger, and though they seldom rendered the slightest thanks for a gift, they used to thank the English heartily, for eating with them.

The principle of honesty is not, indeed, always the rule of conduct among them, though in this respect there is much difference among various tribes. Captain Franklin, in his second voyage, was beset by numbers who attempted to take whatever they could lay their hands upon; though those people were said by their countrymen to be a bad tribe. Captain Parry remarked the general dishonesty of the eastern tribes towards the Europeans, but had no evidence that they did not respect the property of each other. Besides, as he remarks, to place a saw, a hatchet, a knife, or a piece of iron, before an Esquimaux, is to offer a temptation as irresistible as gold to an European.

Captain Parry and his associates were as unfavorably impressed with the want of gratitude, as of honesty in the people. They seldom returned thanks for any favor, and the feeling of gratitude seemed to belong to them as little as the expression. A female, named Igliuk, who had so great a share of sagacity, that she was called by the sailors "the wise woman," and upon whom favors had been showered, was yet so deficient in gratitude, that she refused to make a dress of skins for one of the officers. Captain Parry remarked, that the attention she had received, seemed to have turned her head, and that "Igliuk in April, and Igliuk in February, were very different persons;" he relates, however, among a great number of traits of ingratitude, two of a contrary feeling, that are the more impressive, as they stood alone. A woman had been taken on board the ship for medical aid, where she was treated with great kindness; a short time before her death, which she knew to be near, she grasped the hand of the surgeon, who had been very kind to her, and pressed it to her lips with all the strength she possessed; the husband was much affected by this last act of his wife, and, with many tears, earnestly repeated his own thanks.

Though the Esquimaux are remarkable for affection to their children, they have not in the same degree a respect for parents. To be old, is, with them, to be without the pale of sympathy, or assistance. Old people and widows are often left, as in Greenland, to perish, though orphans are generally protected by adoption. Captain Parry remarked, that envy was a very general failing with this people; they seemed to repine as much over a gift to their neighbor, as they rejoiced in one to themselves. They had, also, more than would be expected in a rude state of society, a taste for scandal, which was much supported by their talent for ridicule. It was very common for a little company when met, to mimic some peculiarity of their neighbors, or to set forth in a ludicrous manner some discreditable occurrence. There are few disputes among them; when these occur, they are sometimes settled by conventional blows; that is, one party in turn abides the blow of the other, and he is the winner, that endures the longest.

Wars are unknown among them; though the Indians pursue them with ferocious vindictiveness. Captain Parry related to some of them the massacre of their countrymen described by Hearne; they shuddered, and the mothers pressed their children as if the danger were present. The same person says of them, "war is not their trade; they are fishermen, and not warriors; but I cannot call that man a coward, who, at the age of 21, will attack a polar bear single handed, or fearlessly commit himself to floating masses of ice, which the next puff of wind may drift from the shore."

7. *Amusements.* It was rarely that Captain Parry or his companions visited the huts when they did not find the people engaged in some sport or game. Some consist merely in grinning and grimacing, in which they are so successful, that the Captain thinks they would put the most skilful horse-collar grinners out of countenance. They have a game similar to blind man's buff, but the most common recreation is a recitation of certain words, uttered while the parties are engaged in going through a sort of dance; they have also the skip-rope, which is held by two, while the third jumps over it. They are exceedingly fond of music, although their own is not of a very high grade. It is chiefly vocal, though they have a sort of drum or tamborine. Whenever the English played or sung to them the women would bend forward to catch the sounds and remove the hair from their ears. Their own songs are long; and the most common have the chorus common in Greenland, *Amna Aya.* Captain Parry did them a favor much to their taste, when he instructed them in leap frog and other games; they became expert at the former, and when he walked forth, put themselves in line and position to be jumped over.

8. *Government.* There is no government in force among the Esquimaux, but that of families; yet in all their settlements, they act with wonderful unanimity. There is not even a word in their language to express a superior in point of station.

9. *Religion,* &c. They have no conception of a Supreme Being, and their notions are very confused, concerning a future state. They have hardly any belief, that may be called religious. Their superstitions relate principally to spirits, with whom their Angetkooks or conjurers are supposed to have communication.

The marriages are performed with no solemnity or ceremony, and the courtships are more summary than in civilized countries. The Esquimaux, upon some intimation from his future father-in-law, or other friend of the bride, goes for and carries her off, as by force, to his own hut. Resistance is, as in Greenland, a part of the ceremony that custom imposes on the female. Generally, there is little polygamy, and all are married young. The Esquimaux did not credit the assertion of the English sailors, that the most of them were unmarried. They use their wives kindly, and one has only to enter their hut to see that the domestic affections can flourish at this extremity of the earth. In this respect, they are far superior to any tribe of Indians, in which the women are slaves to the cruelty and caprice of the stronger sex Even Igliuk (mentioned by Parry), in whom the feeling of gratitude seemed to have no existence, showed the deepest feeling when her husband was ill. "Nothing could exceed the attention she paid to him; she kept her eyes almost constantly upon him, and seemed anxious to anticipate every wish."

The burials have as little ceremony as the marriages; the bodies are buried beneath stones or ice, yet so carelessly, that the wolves often prey upon them, and skulls are to be seen about some of the huts. The canoe and some implements are placed near the grave, and a friend sometimes walks several times around it. At deaths, and on other occasions of misfortune, the friends sometimes assemble to cry and howl with the afflicted; this is the ceremony of condolence, begun generally by the person who sustained the loss; the others, when he has begun to express sorrow, join him with groans and expressions of grief.

CHAPTER LI. POLAR REGIONS.

White Bear, feeding on a Whale amid the ice.

1. ***Greenland.*** There are no means of ascertaining whether Greenland is joined with America, or is an island, or a part of a polar continent. It is an extensive country in the most northern region of the globe, bounded on the E. and S. by the North Atlantic Ocean. The shore on the western side has been explored about 1,000 miles. It is high, rugged, and barren, rising from the water's edge into precipices and mountains, which are crowned with perpetual snow. The eastern coast, beyond the promontory of Herjolf's Ness, is absolutely unexplored. An everlasting barrier of ice precludes the attempt.

This country belongs to the crown of Denmark. The Danish establishments consist of about 20 factories, scattered along the coast, and divided into 2 departments, over each of which an inspector presides. Besides those for the fishing trade, there are several settlements of the Moravian Missionaries. Cape Farewell, the southern extremity of Greenland, is situated in 59° N. latitude. Coasting to the northwest from this place, the first settlement is *Julianshaab*, and then *Frederickshaab*, upon a projecting point of land. The latter was founded in 1742, has a good harbor, and is an eligible place of trade.

Nine leagues from this colony is the well-known Ice Blink. This is a vast, elevated sheet of ice, reflecting a brightness over the sky which resembles the Northern Lights. The mouth of the adjoining bay is blocked by ice driven out by the efflux of the tide, and so wonderfully heaped by the waves, that the spaces between the islands are completely vaulted over, and present the sublime spectacle of an enormous bridge of ice, 18 miles long and nearly 5 broad. Boats may enter the harbor under the arches, which are from 60 to 180 feet high. The mouth of the bay is closed, but there is a sheet of open water within.

In latitude 64° 14′ stands *Gothaab*, a settlement, where there is a church, founded in 1721 by the famous missionary Egede. Some thousands of the natives formerly dwelt in this vicinity; but in 1733 the ravages of the smallpox thinned their numbers, and their population has been on the decline ever since. Passing the colonies of Sukkertoppen and Holsteinburg, we come to Disko Island. From the great distance at which it first becomes visible above the horizon, this island must be more than a mile in perpendicular height. Disko Bay is 120 leagues in circuit, and has the most productive fishery of any in Greenland. There are several settlements on and about the island. *Lively* is the principal, and has an excellent harbor for small vessels.

The climate of Greenland is intensely cold; and in winter, while the northeast wind blows, the thermometer is often at 48° below zero. Before the ice begins to be formed the sea smokes, and produces a fog called *frost smoke*, which has the singular effect of blistering the skin. The aurora borealis sometimes appears here in great splendor. Mock suns are very frequent. From the peculiar state of the atmosphere in clear weather, the islands of the continent seem to the spectator to approach nearer to him, and to increase in size; sometimes they assume the form of groups different from the real shape, and appear suspended in air. Lightning is sometimes observed, but thunder is rare. The rains are generally of short duration, the air is pure, and in some places the heat in summer exceeds 80°.

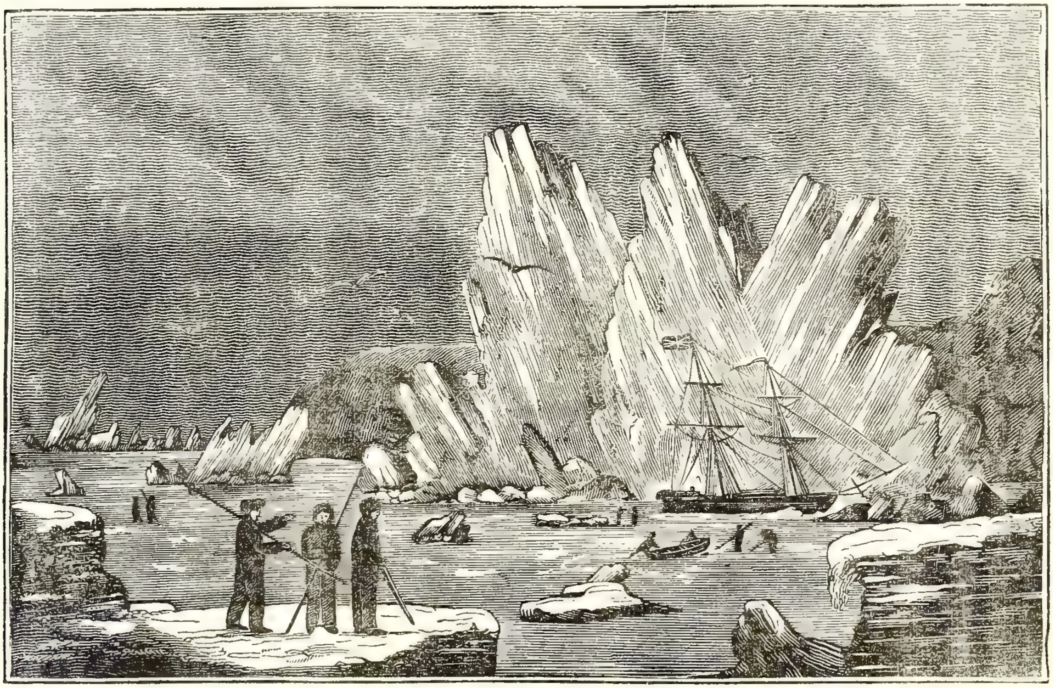
It may well be supposed, that the vegetable productions of such a soil and climate are not very numerous or luxuriant. The valleys are clothed with mosses and a miserable species of grass. A few herbs, bilberry bushes, and other shrubs vegetate on the desert isles, and on cliffs which have just soil enough for them to take root. The most common of these is the scurvy grass, of which a soup is prepared, that in many diseases is an excellent medicine. There are other plants of a dwarfish character, and trees which never rise above 18 feet. Some attempts have been made to cultivate oats and barley, but they never came to perfection.

The trade to Greenland has always been a monopoly, and it is now carried on by the Danish government. Each settlement is managed by a trader and his assistant, in their employment. The exports are feathers and eiderdown, horns of the sea-unicorn, skins of seals, foxes, bears, hares, and reindeers, whalebone, and oil of all kinds. Five or 6 vessels go out from Copenhagen to Greenland every year, about the beginning of May. Their cargoes are made up of guns and ammunition, all sorts of ironmongery, various cloths, looking-glasses, snuff-boxes, &c. The whale fisheries, are chiefly carried on by the settlers, and for the Danish government. The British whale-fishers visit Disko yearly about the end of April and leave it in June. In 1802, including the Moravian settlements and the natives, the total population of the west coast of Greenland was supposed to amount to 20,000 souls.

Greenland was first discovered to Europeans in the 8th century, by Erick Raude, an Icelander, who was driven by accident upon the coast. On his return he represented the country so favorably to his countrymen, that several families followed him thither, where they soon became a thriving colony, and bestowed upon their new habitation the name of Greenland, that is, "green land," on account of its verdant appearance. The Greenlanders became tributary to Denmark in A. D. 1023, which was soon after they embraced Christianity. A bishopric was erected there, and there is a long list of their bishops on record. In the reign of Queen Elizabeth, Martin Frobisher visited Greenland, and penetrated the strait known by his name

Davis, Button, Hudson, Baffin, Parry, and Ross, in seeking for a northwest passage, have added much to the knowledge of arctic geography.

2. *Islands.* Greenland is surrounded by many thousands of islands, which are mostly barren rocks, interspersed with valleys covered with perpetual ice. They are visited by the Greenlanders, during spring, for the purpose of catching seals. In 61° 21′, an uninhabited island of considerable magnitude, called from its terrific appearance, the *Cape of Desolation*, is always surrounded by masses of floating ice. *Spitzbergen* was long considered as forming a part of Old Greenland, but is now ascertained to be a cluster of islands, scattered between 76° and 80° north latitude, and 9° and 24° east longitude. The principal of these is 300 miles in length, and presents to the eye numberless peaks, precipices, and ridges, rising from 3,000 to 4,500 feet above the sea level. This country is claimed by the Russians, who maintain a colony from Archangel. West of Greenland are the *North Georgian Islands*, and *Melville Island*, where the English discovery ships wintered.



Polar Regions.

3. *Inhabitants.* Early in the 10th century an Icelandic colony was planted in Greenland, of which the records show a flourishing state down to the year 1408. At that time the small trade between Norway and Greenland was for a long period discontinued, and the colony has not since then been discovered, if it can be supposed to exist. The colony had many stations and churches. The *Skrællings*, or dwarfs, as the Norwegians called the Greenland race of Esquimaux, made their first appearance in the colony about the year 1350, and are the present inhabitants of Greenland. The colonists are supposed to have been destroyed by them, to have perished by famine, or the pestilence called the *black death*, that raged in Europe in the middle of the 14th century. There are, however, some traces of the present existence of a race of people in the north, in manner of life different from that of the southern natives. In 1822 Captain Scoresby found a dead body recently enclosed in a coffin, and it is related, that in 1530 an Icelandic Bishop who was driven near the coast, saw upon the shores people with herds of cattle. The accumulation of ice has been a barrier to modern discoveries.

The inhabitants of Greenland are of the same stock with the race of Esquimaux, that extend over the whole northern coast of America; and who resemble more the natives of the North of Europe than the tribes of American Indians. Between the Greenlanders and Esquimaux there is a similarity of figure, dress, houses, boats, weapons, manners, and languages. The children are little more dark than a brunette. In height the Greenlanders seldom exceed 5 feet; they have flat faces with high cheek bones, and very full cheeks. From their manner of life, they are much inclined to fat. Their eyes are small and black, but with little lustre; and their hair is long and black. They have little beard, which they carefully eradicate. A life of alternate plenty and want in a severe climate is so little favorable to longevity, that few males live to above 50 years of age; females, who endure less hardship, sometimes attain to 80 years.

4. ***Dress.*** In a climate like that of Greenland, the main end of dress is defence from the cold, and when this is attained, it is not usual here to be solicitous for neatness or display. Perhaps the reverse of neatness is never carried so far as in a Greenlander's person and dress, as the skins in which he is clothed literally drip with fat. Hans Egede says of them, that "delicate noses do not find their account among them;" and he further affirms, that "the olfactory sensation strikes one not accustomed to it, to the very heart." It is not here, that one would feel the wish of Catullus, to be all nose.

The materials for dress are generally skins, though a few natives wear some articles of European woolen. The outward garment is a loose frock, with a hood like the cowl of a monk; this and the breeches are of seal or reindeer skins. The shirt is sometimes made of the skins of fowls with the feathers inward. Some people, however, wear coarse European linen. The dress of females is little different from that of the males; though mothers have a frock so capacious, that they can carry a child at the back stowed between the body and the coat.

5. ***Dwellings.*** The houses are not, as has been sometimes stated, subterranean, but they are always placed on a little eminence, that the water may be conducted away. They are near to the sea, the element to which the Greenlander looks for all his resources. They are so low that the inhabitants can barely stand in them upright. They are generally built by the women, of large blocks of stone, in which the interstices are filled with mud and turf. They are formed in a line like barracks, and one of them contains from 2 to 10 families, of whom, however, each has a separate apartment, opening from a common entry, that runs in front of all the rooms. There are no chimneys, as the only fire used is that of lamps, and this is so considerable that the apartments are warm. The entrance is under an arched or covered way of 20 feet, so low that, to enter it, it is necessary almost to creep. In summer these huts are deserted for tents made of seal-skins stretched upon a post of whalebone or wood, and made fast to the ground by large stones.

6. ***Food.*** Fish, which form the wealth of all the northern shores, are in great abundance about Greenland. The ordinary food of the inhabitants is the Greenland salmon, a small and delicate fish, seldom more than a foot in length, but so abundant that in the bays it darkens the waters. The flesh of the seal is more esteemed but less used, for all do not excel in seal-catching, and the flesh of the reindeer is still more rare. Though these supplies may be considered abundant, yet there are circumstances that sometimes interrupt them; and at these times, many of the inhabitants die by famine. Even when some have abundance, others are suffering from want, for few savages provide for the sick and aged.

The flesh is sometimes eaten raw, but the fish is always cooked in a large stone vessel, suspended over the lamp. The lamps, which are open, are devised for this purpose, and have sometimes a wick running round the whole circumference. They are fed from a piece of blubber suspended over it, from which there is a constant dripping. There are no set times for eating, but each one eats when he is hungry; and this brings a more frequent recurrence of eating than is common in Europe. This abundance of oily animal food, gives the Greenlanders a great degree of obesity, and renders them so plethoric, that they often bleed at the nose. The children being unable to support as well as adults this manner of life, are not weaned till they are 3 or 4 years of age, though motherless infants are destroyed.

Unlike most savages, the Greenlanders are not fond of tobacco, which in its various forms is so much used in Iceland. Having no production from which they can make an intoxicating liquor, they have escaped one great scourge of an uncultivated people. In other climates, few nations are so rude as to have no knowledge of producing the means of intoxication, but in Greenland, the earth that denies food, denies also the materials for distillation. The inhabitants formerly would not taste ardent spirits; but of late, those in the vicinity of factories have contracted a taste for what they used well to call the "waters of madness."

7. *Manners, Customs,* &c. In the manners of savage life, there is little to interest us; a description of them is generally but a picture of violence, ignorance, superstition, and cruelty.

In uncivilized countries, there are few artificial distinctions, but man is there honored only in proportion to his usefulness to the community. In Greenland, therefore, to be expert in killing the seal, walrus, and whale, is to have the best title to respect; and to be inexpert in these pursuits, is to be despised. The pursuit of sea animals is in Greenland a service of toil and danger. The hunter in his frail bark must fear no tempest. His light and frail boat passes over the wave or underneath it. If he is overturned, so that his head is downwards and his boat above him, a stroke of his paddle recovers his place, and he is again seen like a bird skimming the waters. If he break or lose his paddle, there is no hope for him. A crowd of idlers may see his peril from the shore, may have their boats at hand, ready to follow the slightest trace of a whale, yet, unless there were some relationship, or other circumstance stronger than general humanity, not one of them would move to rescue a drowning man.

The Greenlanders indemnify themselves for their toils at sea, by taking their ease on shore; where all the labors, and even those of bringing the huge stones for their dwellings, are performed by females. The lot of the females is hard; degraded to the rank of slaves, they are not permitted even to eat in the company of men. In such a state of society, marriage is hardly ever a contract made by the consent of both parties. The marriages are made with little ceremony, and the courtships are very summary. The lover, after an understanding with the parents, sends or goes for his bride, and resistance on her part is of little avail; indeed, a certain degree of it has grown into a custom, for it is thought discreditable in a woman to be lightly or willingly won. Before marriage, the females are said to conduct themselves in a more moral way than after, and there is little evil that can be justly said of them while they are single. There are few divorces where there are children; though this depends upon the will of the husband, whose authority is unlimited. He may beat his wife without reproach, but would subject himself to much animadversion were he to strike a female domestic; for the wife to strike one, is unpardonable.

Bad as is the state of wives, it is yet enviable compared with the condition of widows. A widow has no friend; every door is closed upon her, and her relations that come to condole with her rob her of all she has. If she has the greater misfortune to be deemed a witch, she holds her life and her property by a tenure equally frail. Any one who fancies that he is injured by her in health or property, may unite the powers of judge and executioner, and take the life of the reputed witch. Yet the Angekuts or conjurors are held in veneration.

At funerals, it is common to throw out the goods of the deceased, and for the women to be dishevelled and clothed in their poorest attire. The men sometimes gash themselves, to express or represent grief. The women lament and howl over the dead body, which, after these observances, is taken from the tent or hut by a private outlet, and buried under a heap of stones. The spear, boat, &c., of the deceased are placed near the grave. The rites of sepulture are, however, seldom paid to one who had no friends. There are no people so poor and miserable, that they have not a national pride, and it is common with many tribes of savages to designate themselves by a word signifying *men*, intending thereby their superiority over the other races of mankind. It even seems, that a man is the more closely bound to his own country, the less it is a subject for envy. That the sentiment of patriotism is the strongest in countries the least delightful, may appear from the few Greenlanders who have been forcibly removed from their home. Two of them in Denmark, who had been there some time, recovered their own boats, that could contain but one person, and put to sea to return to their country; a storm drove them back after they had gone many leagues. They made afterwards a similar effort, and were pursued; one was retaken, the other perished. Another Greenlander jumped from the ship that was carrying him away, in the vain attempt to reach Greenland by swimming. Of the first mentioned, one would shed tears when he beheld a child at the breast. It is probable, that it reminded him of the situation of his own family. The Greenlanders are a peaceful race, though they are revengeful, and carry for a long time the remembrance of a wilful injury. They are to a considerable degree social and hospitable, and so little addicted to railing or calumny, that there is hardly a term of reproach in the language.

8. *Religion.* The Greenlanders have some obscure conceptions of a future state, and believe in the supernatural powers of their Angekuts or jugglers. They wear amulets to defend them from disease and misfortune. There is in Greenland a mission or two, one of which is a Moravian; but the success has not been general or very encouraging. It is said, however, to be very difficult to make the natives conceive of invisible things, or to elevate their minds above the objects of the senses.

9. *Amusements.* The Greenlanders have two games of ball, — one resembling our football, and the other is a struggle between two parties for the possession of the ball. They have also some feats of strength, particularly of grappling, or hooking the fingers together, and pulling in that way. They also strike each other with the hand alternately on the back, and this is continued with much severity, till one party yields to the other. The women sometimes dance in a circle to the sound of a drum, and to singing. The dances of the men are rather matches for grinning and grimaces, in which the one tries to outdo the other in making hideous faces and assuming grotesque attitudes. The great season for rejoicing is on the return of the sun, and the sun feasts are held by all; at these the viands of the country are furnished in great profusion.

An amusement of a more pastoral kind is a singing match, to which one Greenlander invites or challenges another. The friends on both sides assemble and the challenger endeavors to render his adversary ridiculous; he retorts, and the friends on each side applaud their favorite. This struggle is continued till one party is exhausted, and the victory is supposed to belong to him who has the last word. They are familiar with the use of irony, which they are obliged to use from the poverty of the language in reproachful words. These singing matches are said to be managed with much ability and to abound in satire.

10. *Government.* There are no laws, no magistracy, no civil polity. Everything is governed by custom, and no man has authority over another except in his own family, and there the children are never chastised. Yet there is no disorder or turbulence, and in the main, the peace of society is as well preserved in Greenland, without any rule of political conduct but custom, as in many countries highly civilized and with a numerous police.

CHAPTER LII. ICELAND.

1. *Situation and Extent.* Iceland is situated on the verge of the polar circle, between 63° 24′ and 66° 30′ N. latitude, and between 13° 15′ and 24° 40′ W. longitude. Its length is 300 and its breadth nearly 150 miles, and it has a superficial area of 40,500 square miles.

Hecla, a volcanic mountain in Iceland.

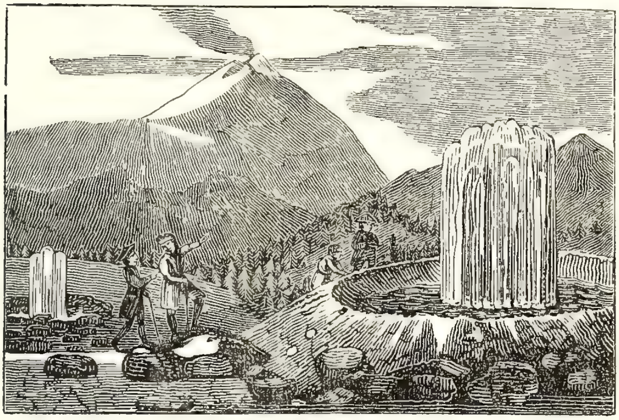
2. *Mountains.* This island is celebrated for its volcanoes, and its mountains of ice. *Mount Hecla* is in the southern part, a few miles distant, from the coast, and is about 5,000 feet in height. It is neither the most elevated nor the most picturesque of the Icelandic mountains, but its situation renders it conspicuous, and it has become famous by its repeated and tremendous eruptions. The earliest eruption on record was in 1004, since which there have been about 20. More than 60 years have elapsed since the last. The summit of Hecla is divided into 3 peaks, the middle of which is the highest. The craters form vast hollows on the sides of these peaks. The mountain itself consists for the most part of sand and slags; the lava being confined to the lower regions, and forming an immensely rugged and vitrified wall around its base. The most dreadful volcanic eruption known in Iceland was from *Skaptar Yokul*, an ice mountain, near the sources of several rivers, and composed of about 20 red, conical hills. It took place in 1783, and caused great devastations. *Oræfa Yokul*, the highest mountain in Iceland, is supposed to be an elevation of 6,240 feet. The *Sulphur Mountain* has been described as a "natural cauldron of black, boiling mud;" the sulphur exhales from it in great profusion.

3. *Climate.* The cold is not more intense in Iceland than in the most favored parts of Denmark, and the thermometer seldom or never sinks to zero. What affects the temperature most is the arrival of floating ice from Greenland. This comes in immense masses, often so large as to run aground in 80 fathoms. When it remains for a long time on the coast, the winter snows are longer in melting, the frost remains in the ground, vegetation is checked, and the summer is very short.

4. *Geology,* &c. Iceland is a chain of immense rocks, in the structure of which trap and basalt predominate. Their summits are crowned with snow, though everlasting fires burn in

their subterranean caverns. Tracts of lava traverse the island in every direction. The general appearance of the country is the most rugged and dreary imaginable. On every side are the yawning craters of active or extinguished volcanoes, the sources of the surrounding desolation. In many places the basalt takes the form of immense masses of pillars, like the well-known Giant's Causeway in Ireland.

The hot springs of this island are very remarkable, and are quite numerous. The most celebrated is the *Great Geyser*, in the neighborhood of Mount Hecla. The water boils with a loud, rumbling noise, in a well of an irregular form, about 10 feet in diameter, widening near the top, and opening into a basin 56 feet by 46. Its explosions are announced by sounds resembling the low report of artillery. The first jets which are thrown up, seldom exceed 15 or 20 feet, but the highest often exceed 80. On the propulsion of the jet, the great body of the column rises perpendicularly, and then divides into beautiful curvated ramifications, which are projected in every direction. The explosions of the Great Geyser take place at intervals of about 6 hours. There are many other inferior springs of boiling water, and several of boiling mud.


Great Geyser.

At Surtshellir is a long cavern, 40 feet high, 50 broad, and 5,034 in length. The entrance is through several chasms in the roof. It was evidently formed by volcanic agency, and is supposed by the natives to have been formerly the residence of the king of the regions of fire. One of the minor caves is beautifully coated with pure ice in every form of crystalization.

5. *Natural Productions.* Among the vegetables is a species of wild wheat, which may be made into good flour. Besides the lichens, there are many anti-scorbutic roots, and several marine plants, which are used as food. Wild berries of an excellent flavor are found in abundance. Of late years, gardening has been practised throughout the country, but with little success. There are no better trees than birch and brushwood. Immense quantities of pine, firs, and other trees, however, are thrown upon the northern coasts.

6. *Minerals.* A very singular mineral production of this island is a kind of fossil wood, black, heavy, and slightly carbonized, burning with flame. There is another kind of mineral wood, heavier than coal, which burns without flame, and contains chalcedony in its transverse fissures. Of the ordinary lava, there are several different formations. The central mountains contain copper and iron; which are not wrought for want of fuel; also marble, lime, plaster, porcelain clay, several kinds of bole, onyx, agate, jasper, and an abundance of sulphur.

Icelanders.

7. *Towns, Population,* &c. The capital is *Reykiavik*; it is a seaport with some trade. The other considerable towns are *Holm* and *Husarik.* The chief agricultural product is hay. Most of the inhabitants are employed in fishing. The trade consists in the exportation of fish, oil, skins, feathers, and sulphur. The population is about 50,000.

8. *Inhabitants.* The Icelanders are rather tall, of a frank, open countenance, florid complexion, and yellow, flaxen hair. The women are short in proportion to the men, and inclined to corpulency.

9. *Dress.* The common dress of the men is a linen shirt, a short jacket, and wide breeches reaching above the jacket. The men wear three-cornered hats. The most curious part of the female dress is the turban, of white linen, stiffened with a great many pins, and about 20 inches in height. It is fastened to the head by a dark-silk

handkerchief, that is tied several times around it, and completely hides the hair. This has for ages been the national dress.

10. *Language.* This is the Icelandic, an original language, or the Scandinavian, the stock of several languages in the north of Europe.

11. *Manner of Building.* The houses in Iceland are all constructed in the same manner. The walls are thick, and composed of alternate layers of earth and of stone. The rafters are a few beams of drift-wood, or of whalebones interlaced with twigs, and covered with turf. This kind of roof always bears good grass, which is cut with the scythe. There is generally a dark alley running through the middle of the house, and on either side of this are the entrances to the various apartments, as the kitchen, the stranger's room, the sleeping room, &c. The stranger's room is always the best in the house. The light is admitted from the roof through windows of glass, or of the membranes of sheep. There is no chimney in the kitchen, and the smoke escapes through a hole in the roof. The Icelanders never have fire even in winter, but for cooking. The beds are arranged on each side the sleeping room. They are very narrow, yet the people sleep by couples, lying head to foot. The floor is commonly the damp earth. This manner of life causes pulmonary diseases, which carry off many people, and few attain to old age.

12. *Food.* The ordinary diet is of the simplest kind. The breakfast is of sour curds, mixed sometimes with sweet milk and flavored with berries. The dinner is of dried fish and butter. The latter, when rancid, is most esteemed, and bears double the price of fresh and new. The supper is like the breakfast, or it is sometimes a kind of porridge ; and this is to a foreigner the most palatable of all the Icelandic diet. On great occasions, the people have boiled mutton and rye porridge. Beef is seldom eaten, and there is no bread except a little of the sour, Danish biscuit. The usual beverage is whey mixed with water.

13. *Diseases.* The most common maladies are obstinate coughs, or consumptions ; and the want of personal neatness engenders cutaneous diseases. Many children die before the 10th year, and about a twenty-fifth of the deaths are from accidents, generally drowning.

14. *Mode of Traveling.* No other civilized country offers so many obstacles to the traveler as Iceland. There are no coasting vessels to take him from one place to another along the shore, and there are no vehicles, and scarcely any roads in the interior. The only way of traveling is on horseback, and in general the horse is purchased, not hired. There is, however, a truly hospitable custom and feeling, that leads the inhabitants to exchange with the traveler, without a shilling for boot, a good and fresh horse, for one lean and jaded with a long journey. The horses are seldom housed or fed, even in winter, but subsist chiefly on the sea-weeds thrown up by the tide They are of a stout race, and are broken to an amble, an easy gait for an equestrian. As there are no inns, and little desirable shelter in the small and crowded dwellings, the traveler usually carries a tent, and the nature of the road imposes an equal necessity for a guide ; while the fogs or storms of snow, make it necessary, that he should also be provided with a compass. He must ford rivers if the ice be too weak to bear him, and if not provided with shelter, he must sometimes seek it in caverns, or build a house of snow. In winter it is impossible to travel at all, and even in summer, when there is no obstruction from ice and snow, there is enough of difficulty and danger, in crossing rivers, climbing mountains, passing morasses, and picking a way over the burning and smoking ground, rent by earthquakes into chasms.

Towards the end of June, the Icelanders make a journey to the coast, to sell their productions to the factories, and bring back other commodities in exchange, for the traffic is carried on rather by exchange, than money, — though the absence of money has produced a sort of substitute in fish and wadmal (a coarse cloth). Of fish, there were in the time of Von Troil, 48 to the rix dollar. This transportation of goods to the coast and back, leads the people, for mutual assistance, to travel in caravans, and sometimes 70 horses are seen together, going down to the coast, and often at the factories there are 300 horses and half as many tents.

15. *Manners and Customs.* It is only on the confines of the polar circle, that we must look for society in a state of primitive simplicity, and with a diffusion of a great degree of knowledge, though without the answering grade of refinement. The remote insular situation of Iceland, and its poverty, which one of its pastors called the "bulwark of its happiness," is a fortunate barrier to the visits of foreigners, who might, indeed, introduce to those secluded regions more knowledge of the world, coupled with a greater familiarity with its vices. The early settlers of Iceland, like those of New England, were a race well fitted to leave a high

state of moral feeling and intelligence to their descendants. Many of them were distinguished men of Norway, who preferred exile to oppression at home, and who carried to their adopted country the germ of republican institutions, and of the knowledge that can the best uphold them.

The most prominent traits in the Icelanders are a love of their country, hospitality, intelligence, simplicity, and piety. Though social, they are rather disposed to be serious. They have little conception of humor, and are seldom known to laugh. Yet they may be called an eminently happy people, and seldom leave their own country ; the few who go to Copenhagen are never satisfied till they return to Iceland. It would almost seem that happiness, and simplicity of character, had deserted the sunny skies and fertile fields of southern Europe, to nestle among the icy crags and volcanic ruins of the frozen zone. In Iceland a stranger is at once struck with the oriental manner of salutation, borrowed probably from the Scriptures, with which all are familiar, though until lately but few copies were possessed. The common salutation on meeting is that of the East, "Peace be with you," to which the reply is, "The Lord bless you." On knocking at a door to gain admittance it is common to say, "The Lord be in this place," to which the reply is similar to the last.

It is the universal custom to give thanks with clasped hands before and after a meal ; when the meal is over, the guests kiss both the master and the mistress, thanking them for their kindness. At meeting and parting, the kiss is the universal salutation; on entering a family the visiter must thus salute them all, according to seniority or station, beginning with the highest ; at his departure he reverses this, and the lowest is taken leave of first. Before and after crossing a river the Icelander raises his hat and makes a mental prayer, and also when he goes in a boat from the shore. This religious sentiment is the leading trait in the Icelandic character. Of their characteristic faith, Doctor Henderson gives this example. "I could not but notice," said he, "the manner in which my hostess spoke of her children ; on my inquiring how many she had, her reply was, I have 4 ; 2 of them are here with us, and the other 2 are with God. It is the best with those that are with him, and my chief concern about those that remain is, that they may reach heaven in safety."

16. *Amusements.* The amusements of the Icelanders are of a grave character, founded less on levity than the intelligence that is so much diffused among them, and though they have chess, and cards, they generally prefer to pass their evenings in recounting some legend of their ancestors, or reading by turns the history of their own country, or some other useful book. As books are scarce in Iceland, copies are multiplied in manuscript, and many of them are so well executed as to be beautiful specimens of the art.

17. *Education.* There is no other country in which so great an amount of knowledge is universally diffused as in Iceland ; and yet there is on the island but 1 school, and that is designed chiefly for such as are to fill offices in church and state. The education is strictly domestic, and no one acquires any that he does not get at home. The extent to which it is carried is scarcely credible. It is not uncommon to hear a youth quote a Greek or Latin author, and in almost every hut there is some person capable of conversing well upon subjects, far above the understanding of those of the same grade in other countries. The Icelanders are not only familiar with their own history and literature, but they are in a great degree conversant with those of other nations. It is surprising to hear these self-taught people conversing on subjects that belong to a professor's chair. Among other instances of this wonderful diffusion of education, Doctor Henderson relates, that he was reading to a common person a letter addressed by the King of Persia to the English Envoy, concerning a version of the New Testament. The date was 1229, and a little boy remarked, that it must be a very old letter. "No," said the peasant, "it was not written according to our computation, but it was dated from the *Hegira.*"

18. *Arts, Sciences,* &c. Till the year 1264, from the introduction of Christianity into Iceland, it was the only place in the North where literature was cultivated. The Scandinavian legends were wild and warlike. The Scalds were the poets and historians, and the Sagas recalled the memory of the past in stories. These traditional histories and poems were collected by Saemund Sigfussen, who was born A. D. 1056. This collection is called the Edda. The mythology of the Scandinavians was copious. Divine honors were paid to Odin, who was supposed to be a sanguinary deity, receiving into his paradise Valhalla, only the brave and warlike. Friga, his wife, was the second deity, and Thor the third. There were many others inferior.

19. *Religion.* The religion is strictly Lutheran, and the parishes are in number 184. The clergy, who are all natives of the island, are but partly maintained by tithes; they cultivate the glebe attached to the churches, and many of them are obliged to follow the occupation of fishermen. The richest living in the island does not produce 200 rix dollars, and there are parishes in which the stipend is as low as 5. But the clergy are faithful if not for hire. Every one keeps what is called a "register of souls," or a statement of the conduct, abilities, and proficiency of each individual in the parish. The family books are also entered in this register, which is given to the Dean at his annual visitation. Every clergyman is bound to visit every family in his parish at least twice a year, when he catechizes every inmate, old and young.

20. *Government and Laws.* Iceland is a colony of Denmark; the Governor is appointed by the King, and holds his office 5 years. The laws are of the mild character that befits a country where crimes are almost unknown. Fines, imprisonment, and whipping are the only penalties inflicted in Iceland. Criminals that are capitally convicted are sent to Copenhagen to be beheaded, as, for many years, no person has been found on the island to execute the sentence of the law.

21. *History.* Iceland was settled by the Norwegians in the 9th century, and for many years constituted an independent republic. In 1264, it came under the dominion of the King of Norway, and was subsequently transferred with that country to the crown of Denmark, under which it remains at present.

CHAPTER LIII. REPUBLIC OF TEXAS.

1. *Boundaries. Area.* The boundaries are unsettled on the side of Mexico; on the east and north they are the Gulf of Mexico and the frontiers of the United States, as already described. The old province of Texas or Tejas was bounded on the west by the Nueces, and a line drawn from its head to the sources of Red River, that river forming the northern boundary. Within these limits its area is about 160,000 square miles. The republic, however, extends its claims to the Rio del Norte on the west, and to the Arkansas on the north, comprising a tract of 140,000 square miles. The name of the province was derived from one of the native tribes.

2. *Face of the Country,* &c. The surface along the shore, and to the distance of from 50 to 100 miles inland, is low and level, with occasional swamps and marshes, but generally composed of arable prairie, traversed by lines of wooded river-bottoms. Above this maritime plain, the country is undulating, nowhere attaining a considerable elevation, but agreeably diversified by gracefully rounded swells, gentle slopes, and broad plains. This region is mostly prairie, the trees being chiefly confined to the river-valleys. On the west, several outliers of the Mexican Cordilleras extend across the Colorado to the Brazos, where they subside into the elevated plains of northern Texas.

3. *Climate.* The climate of Texas is mild, agreeable, and healthful; the heats of summer are moderated by the sea-breezes, but are sometimes excessive during a few hours before sunset, when the breezes commonly die away. Scarcely any rain falls between March and November, and the vegetation often suffers from droughts. In November north winds set in, and heavy rains begin to fall; these winds blow during December and January, when the mountains are covered with snow, and the cold is sometimes severe; but snow seldom lies long in the lower districts. In the early spring the rains are very copious.

4. *Vegetable Productions.* The live oak is found of large size in the maritime region, chiefly between the Galveston and Matagorda Bays; the white, red, post, and Spanish oaks, the cotton-wood, ash, elm, and sycamore or buttonwood, the black walnut, hickory, pekan, the locust, muskit, and bow-wood, the wild cherry, mulberry, chinquapin, persimmon, &c., are among the natives of the forests, and there are extensive cane-brakes between the Colorado and the Brazos. The soil and climate are favorable to the growth of the sugar-cane, indigo, tobacco, cotton, rice, Indian corn, sweet potatoes, and in some parts of wheat, rye, oats, &c.; and the prairies afford excellent natural pastures all the year round. The cotton crop is nearly 100,000 bales.

5. *Rivers. Bays.* Texas has a gulf-coast of about 300 miles, exclusive of the windings, but contains no good ship-harbor, and even few ports for smaller vessels. The shallow bays which receive most of the rivers, and the mouths of those rivers which enter the gulf, are barred by shifting sand-banks, the channels through which are often intricate, and never have

more than 12 or 13 feet of water ; from April to August, ships may ride at anchor securely in 6 or 8 fathoms ; but from August to April, the heavy swell renders the coast dangerous, and makes it impossible to lie at anchor off shore with safety. *Galveston Bay* is crossed by bars having only 5 feet of water. *Matagorda Bay* has not generally more than 8 or 9 feet in its channels, but the entrance, or Paso Cavallo, affords 12 feet. *Espiritu Santo* and *Aransaso* bays are still more shallow. The rivers are generally navigable during a part of the year, by steamboats of moderate burden, being rarely interrupted by falls, although much obstructed by shoals and bars. The *Sabine* forms the eastern boundary, and is navigable about 300 miles. The *Trinidad* is a larger stream, but its channel is excessively winding. The *Brazos de Dios* (Arms of God) is the principal river ; it rises on the northwestern borders, and reaches the gulf in a winding course of about 600 miles. The *Colorado* is little inferior to the Brazos, but is choked up by drift-wood 10 miles from its mouth. The *Guadalupe* and *San Antonio*, which unite their waters, and the *Nueces*, are inferior but navigable streams.

6. *Divisions. Population.* The republic is divided into 37 counties.* The population amounts to about 100,000 ; of which number 75,000 are Anglo-Americans, 8,000 are negroes (slaves), and 15,000 Mexicans or Spanish Creoles.

Valley of the Comanches.

7. *Indians.* The Indians within the limits of the white settlements, are not numerous ; they are, Cushattos, numbering about 350 ; Alabamas, 250 ; Wacos, on the Brazos, 400 ; and the Tonkawas. There are some Caddos, Cherokees, Choctaws, Shawnees, and other Indians from the United States, the Comanches, and the Towiash, in the northern parts of the republic. The aggregate number is about 12,000.

8. *Towns.* Although the presidio or fortress of *San Antonio de Bejar* was founded as early as 1681, no important towns grew up here while Texas belonged to the Spaniards. *Bexar* or Bejar, the capital of the old Province, is pleasantly situated on the San Antonio, and has a population of about 2,000, mostly Spanish Creoles. The Alamo or citadel, is a strong fortress, built by the Spaniards, in about 1720 ; but it has been several times captured during the late struggles. *La Bahia*, now *Goliad*, was also a strong post, but the works are now mostly in ruins ; the village numbers about 800 inhabitants. *Gonsales* and *Victoria*, on the Guadalupe ; *Montezuma*, on the Colorado ; and *Matagorda*, on the bay of the same name ; *Brazoria*, *Velasco*, *Columbia*, *Bolivar*, *San Felipe de Austin*, and *Washington*, on the Brazos, are small villages. *Houston*, the former capital of the republic, on Buffalo Bayou, is a thriving town, with 3,000 inhabitants. *Galveston*, on the eastern end of the island of San Louis, has lately become an important commercial mart. Population, 6,000. *Nacogdoches* is an old Spanish post and town, and contains about 1,000 inhabitants ; it is still the principal seat of the Indian trade. *San Augustine* is a flourishing little village, on the Ayish, a branch of the Naches. The seat of government has lately been removed to the Colorado, where the city of *Austin* has been laid out, near the centre of the republic.

9. *Government.* The government is modeled on that of the United States ; the executive authority is vested in a President, who is chosen by popular vote, and holds office for the

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* Alabama
Austin
Bastrop
Bexar
Brazoria
Colorado
Fannin
Fayette
Fort Bend
Galveston
Goliad
Gonsales
Harrison
Harrisburg
Houston
Jackson
Jasper
Jefferson
Lavaca
Liberty
Matagorda
Milam
Montgomery
Nacogdoches
Red River
Refugio
Robertson
Sabine
St. Augustine
St. Patricio
St. Antonio
San Felipe
Shelby
Tancha
Travis
Victoria
Washington

term of 3 years, being ineligible for a second term; a Vice-President, chosen in the same manner, and for the same period, presides over the Senate. The legislative department is composed of the 2 Houses of Congress, a Senate chosen for the term of 3 years, and a House of Representatives chosen annually. The President nominates, and with the consent of the Senate, appoints the principal executive officers; but the judges are elected by joint ballot of the 2 Houses, for terms of 4 years.

10. *History.* The Spaniards established a post at Bejar, in the year 1681, but it continued to be a mere military post until 1719, when a colony of Canary Islanders was seated here. The province was at this time called the New Philippines, and several missions and *presidios* or military posts existed in different quarters. A party of patriots commanded by Gutierrez, captured the Alamo and Bahia in 1812, but were soon after defeated under General Toledo. The republic of Fredonia, proclaimed at Nacogdoches in 1819, was a short-lived state. The American immigration into the province began in 1821, when Austin obtained a grant of a large tract of land from the Mexican government. As the number of immigrants increased, they became desirous of forming a separate State; but their request was rejected, and when the federal constitution was overthrown by violence, in 1834, the inhabitants refused to acknowledge the new government, and established a provisional government for themselves. In the following spring, Santa Anna, the President of the Mexican Republic, invaded the province in person, and captured the Alamo or fortress of Bejar; but was defeated and made prisoner by General Houston, on the San Jacinto, April 21. Meanwhile, a convention composed of delegates from all the districts, had assembled at Washington, and declared Texas to be a free, sovereign, and independent State (March 2), and a constitution was adopted on the 17th of that month.

CHAPTER LIV. MEXICO.

1. *Boundaries and Extent.* Mexico is bounded on the N. by the United States; E. by the United States, Texas, and the Gulf of Mexico; S. by the Republic of Central America; and W. by the Pacific Ocean. It extends from lat. 16° to 42° N., and from long. 87° to 124° W., being about 2,000 miles in length from N. to S., and from 150 to 1,200 in breadth, with an area estimated at about 1,300,000 square miles.

2. *Mountains.* The country is traversed from south to north by a chain of elevated mountains, which is composed of several branches. The ***Central Chain*** enters the country on the south, and bears the local names of the ***Cordilleras of Mexico***, the ***Sierra Madre***, ***Sierra Mindres***, &c.; passing into the United States, it is known as the Rocky Mountains. It consists, strictly speaking, of an elevated table-land from 6,000 to 8,000 feet high, from which, as from a base, rise irregular ridges and lofty summits. Some of the most elevated summits of this chain are the ***Popocatepetl***, or the Mountain of Smoke, a volcano covered with perpetual snow, its elevation being 17,835 feet above the level of the sea; and the ***Istaccihuatl***, or the White Woman, having an altitude of 15,700 feet. These mountains are distinctly visible from the city of Mexico, and the snow with which they are covered is of an extraordinary brilliancy. The ***Nevado de Toluca*** is another colossal summit, 22 miles to the southwest of Mexico. It is 15,156 feet above the level of the sea. The ***Citlaltepetl***, or the Star Mountain, called also ***Orizaba***, is visible from Vera Cruz; it is 17,376 feet above the level of the sea. The ***Nauhcampatepetl***, or the Coffer of Perote, is 13,514 feet above the level of the sea. There are 5 volcanoes in activity near the parallel of 19° N.; ***Orizaba***, ***Popocatepetl***, ***Tustla***, ***Colima***, and ***Jorullo***. The ***Volcan de Jorullo*** is of recent origin. It sprung up in 1759, in the centre of a vast and beautiful plain in the intendancy of Valladolid, and the air around it is still heated by the action of the small funnels or ovens. This chain of mountains is remarkable for its rich silver mines. Near Guanaxuato it sends off two branches, the ***Eastern***, or ***Sierra of Catorce***, of which the ***Masserne Mountains*** are a continuation, and the ***Western***, which sinks down in California. Another chain rises in the Californian peninsula, and passes north into Oregon District.

3. ***Rivers.*** The Mexican rivers rise in the central plateau or table-land, and flow easterly into the Gulf of Mexico, or westerly into the Pacific. In the south, where the distance from the mountains to the sea is small, there are no considerable rivers. In the north, are the head waters of the Red River and the Arkansas, which pass into the United States. The ***Rio del***

Norte, or North River, the largest river in the country, rises in the northern part of New Mexico, and traversing that Territory, and the States of Cohahuila and Tamaulipas, flows into the Gulf of Mexico. It is about 2,000 miles in length, but receives few tributaries, and its navigation is impeded by sand-bars and falls. The ***Colorado of the East*** rises in the mountains of New Mexico, and traversing the State of Cohahuila, flows into the Gulf of Mexico. The principal rivers of the west are the ***Francisco***, ***Western Colorado***, and ***Gila***, flowing through regions imperfectly known. The *Tampico* on the eastern, and the *Grande* on the western declivity of the central table-land, are the principal streams in the south. The southern and most populous part of the country suffers from want of water.

4. *Lakes.* There is a number of lakes of no great extent in the valley of Mexico, near the city of that name, the waters of which are diminishing. *Tezcuco*,* the principal, formerly received the waters of San Christoval, Zumpango, Chalco, and Xochimilco, and was subject to inundations. To prevent this disaster, its waters have been made to discharge themselves into the river Tampico. The celebrated floating gardens or chinampas, formed by covering a sort of raft, composed of rushes and shrubs, with a layer of rich earth, were formerly numerous on these lakes; but most of those now called by that name are fixed, though some move from place to place. *Lake Chapala*, in the State of Xalisco, is distinguished for the beauty of its scenery. In the north, are lakes *Timpanogos* and *Buenaventura* or *Salt Lake*, large sheets of water, of which little is known.

5. *Bays and Harbors.* Although this country has a very great extent of seacoast, it presents few good harbors; but there are some on the western shores. Most of the rivers are obstructed by sand-bars, and both coasts are rendered inaccessible for several months by violent tempests. The *Gulf of California* is 800 miles in length by 80 or 100 in breadth, but its navigation is rendered difficult by numerous shoals. The *Gulf of Tehuantepec*, in the State of Oaxaca, and the *Bay of Campeachy*, between Yucatan and Tobasco, are the other chief bays.

6. *Climate.* About one third of the country lies within the torrid zone, but the remarkable elevation of its surface modifies its climate in a striking manner. The low country along the coasts has a tropical climate, and produces sugar, indigo, &c., while the region which occupies the central table-land from 6,000 to 9,500 feet in height, is mild and temperate, and yields the cereal grains of the temperate zone. The intervening space, from 3,000 to 5,000 feet in height, exhibits an intermediate climate. Thus in ascending the successive terraces, which rise from the sea to the surface of the table-land, the climates succeed each other, as it were, in layers, and in 2 days the whole scale of vegetation is presented to view. Some of the farms or haciendas are at an elevation of 10,000 feet. Above this table-land, single prominences rise into colder regions, and terminate in that of perpetual ice and snow. The year is divided into 2 seasons; the rainy, lasting about 4 months from the end of May, and the dry season, comprising the rest of the year. The northern part has a climate resembling that of the Mississippi valley in corresponding latitudes, but to the west of the mountains the cold is less severe.

7. *Soil.* The low plains on the coast are fertile, and have a luxuriant vegetation. Much of the central table-land is dry and sterile, but in those parts which are well watered the vegetation is remarkably vigorous. In the northwest and northeast are extensive tracts of rich soil.

8. *Vegetables.* The variety of the indigenous vegetation is immense, owing to the great diversity of soil and climate. The banana grows in the warm and humid valleys, and its fruit, which is 10 or 11 inches in circumference, and 7 or 8 in length, is an important article of food. Various preparations are made from it, both in its ripe and immature state. When ripe it is dried, cut into slices, and converted into meal by pounding. Manioc, the root of which also furnishes a nutritive flour called cassava, likewise grows in the hot regions. The juice is an active poison, which is expressed after the root is ground; the remainder or cassava is made into bread. Tapioca, the purest and most wholesome part of the manioc, is

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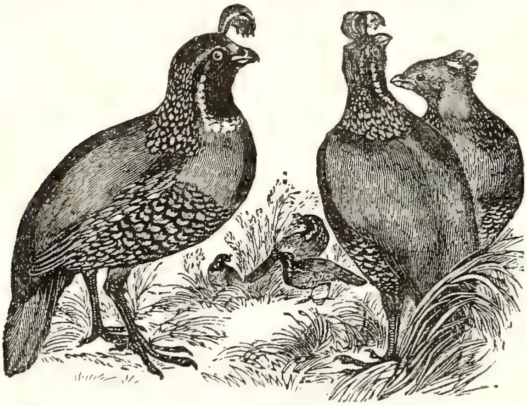
* The bed of the central or low lake of Tezcuco, is progressively rising, in consequence of the loose earth carried down by the torrents and deposited in it. If the report of a survey made in the 16th century (says Humboldt) be true, the great square of Mexico was elevated 43 feet above the level of this lake; which latter is now only 47 inches lower than the former. On the other hand, the cutting down of the ancient forests, and thereby exposing the naked plain to the direct influence of a tropical sun, has diminished the humidity of the atmosphere, and has also increased the evaporation both in degree and rapidity The lake has, therefore, decreased both in extent and depth; and the city of Mexico, which in the days of Cortez stood environed by water, is now almost three miles from the lake of Tezcuco, which receives much less water by infiltration than in the 16th century.

prepared from cassava, by kneading it with the hand, and then stirring it over a slow fire, until it forms into grains. The maguey, or American agave, yields a refreshing drink, called pulque, resembling cider. It is obtained by cutting off the flower stalk at the moment of flowering. Into the cavity thus formed, the juice, that would have gone to nourish the blossoms, is deposited, and continues to run for several months. This liquid is called honey-water, and being allowed to ferment, becomes pulque, from which by distillation an intoxicating drink, called mexical, is obtained. The ancient Mexicans used the leaves of the agave for making paper, and its prickles for pins and nails. The root of the jalap, a twining vine, furnishes a valuable purgative medicine. Logwood or Campeachy-wood, used in dyeing black and purple, is abundant along the bay of Campeachy, and mahogany is cut on the shores of Honduras Bay in great quantities. The dahlias, whose many-colored blossoms give such a splendor to our flower beds, at the season when the approach of winter renders them doubly valuable, are natives of the hilly parts of Mexico. The cheirostemon, or hand-plant, forms immense forests in the southern parts. The sugar-cane, indigo, cotton, cocoa, vanilla, tobacco, cochineal, &c. are among the productions of the Mexican States.

9. *Minerals.* The Mexican mountains contain almost every mineral of use in agriculture, manufactures, and the fine arts. But the mines of iron and lead have been wholly neglected; while those of silver and gold have been sedulously wrought. Copper is found in considerable quantities, and tin is pretty abundant; and extensive iron mines exist in the internal provinces. Coal is very rare. Among the precious stones, a few diamonds are found, with amethysts and turquoises. The mountains produce jasper, marble, alabaster, magnets, steatite, jade, and talc. But it is the mines of silver and gold which constitute the chief wealth of this country. Since their first discovery, in the middle of the 16th century, the silver mines of Guanaxuato have alone produced to the amount of 257,000,000 dollars. Among the other celebrated mines are those of Catorce, Zacatecas, Pachucha, La Biscaina, Zimapan, and Durango. At one period 3,000 silver mines were worked in 500 different places. Before the Mexican revolution, in 1810, their annual produce was 24,000,000 dollars, but since that period it has diminished more than one half. The gold is for the most part obtained from alluvial grounds by means of washing. It sometimes occurs in masses of great purity. The gold of Mesquital is most esteemed, as being least alloyed with silver, iron, and copper. The principal vein in the mine of Villalpando * is intersected by a great number of small veins, of exceeding richness.

10. *Animals.* With the exception of the cochineal insect, the most valuable animals of Mexico have been introduced by Europeans. The *techichi* is a species of dog without voice, which was eaten by the ancient Mexicans. The bison or buffalo is seen wandering in immense herds in New Mexico and New California. The domestic animals imported from Europe have multiplied amazingly. Vast herds of wild horses, said to be of Arabian extraction, wander in the savannas of the Internal Provinces. Of the animals peculiar to this country, the gigantic stags of New California, called *venados* by the Spaniards, are among the most beautiful quadrupeds of America. The feathered tribes are so numerous, that Mexico has been called the country of birds, as Africa is of quadrupeds. There are said to be more than 200 species of birds peculiar to this country.



California Quail.

The California Quail (*Ortyx Californica*) is found in great numbers in the woods and plains of California, where it is seen in bands of 200 or 300. It is a very beautiful bird, and its flesh is sweet and delicate.

11. *Face of the Country.* Mexico comprises all the varieties of soil, climate, and temperature on the globe. The lands on both sides are low; thence there is a gradual rise till the

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* The clayey slime, with which these veins are filled, contains so great a quantity of gold disseminated in impalpable particles, that the miners are compelled, when they leave the mine nearly naked, to bathe themselves in large vessels, to prevent any of the auriferous clay from being carried off by them on their bodies.

country attains the elevation of from 6,000 to 8,000 feet, spreading out into immense plains, called table-land, estimated to comprise three fifths of the whole country. The difficulty of communication between the interior of Mexico and the opposite coasts, will long prevent this country from becoming a great commercial power.

12. *Divisions.* The Mexican confederacy consists of 19 States, 5 Territories, and the Federal District, which contains the capital ; and, although the federal government has been abolished, these divisions are still preserved. The States are subdivided into partidos or districts.

States and Territories.	Population.	Capitals.	Population.
Chiapas	93,000	Chiapas	3,000
Yucatan	500,000	Merida	10,000
Tabasco	75,000	Tabasco or Hermosa	5,000
Oaxaca	600,000	Oaxaca	40,000
Vera Cruz	200,000	Vera Cruz	30,000
Puebla	900,000	Puebla	70,000
Mexico	1,500,000	Tlalpan	6,000
Mechoacan	450,000	Valladolid	25,000
Queretaro	200,000	Queretaro	40,000
Guanaxuato	450,000	Guanaxuato	60,000
Xalisco	800,000	Guadalaxara	60,000
Zacatecas	272,000	Zacatecas	25,000
San Luis Potosi	250,000	San Luis Potosi	40,000
New Leon	100,000	Monterey	15,000
Tamaulipas	150,000	Aguayo	6,000
Cohahuila	125,000	Monclova	3,000
Chihuahua	112,000	Chihuahua	30,000
Durango	175,000	Durango	25,000
Sonora and Cinaloa	180,000	Villa Fuerte	4,000
Federal District		Mexico	180,000
Territory of Tlascala		Tlascala	small town.
" of New Mexico	150,000	Santa Fe	3,500
" of Colima	150,000	Colima	small town.
" of Upper California	25,000	Monterey	2,500
" of Lower California	15,000	Loreto	

The population of the confederacy is estimated at present to be about 7,000,000 souls, including about 3,000,000 Indians, and as many of mixed breed.

2. *Towns.* *Mexico*, the capital city of the republic, is situated in the Federal District, at about an equal distance from the sea on each side, at Vera Cruz and Acapulco. It lies in a large valley, 63 miles in length, by 43 in breadth, which has the volcanic summits of Popocatapetl and Iztaccihuatl on the south, and contains the five lakes already mentioned. This great basin, called the valley of Mexico, is in no part less than 6,000 feet above the level of the sea. The city is one of the most beautiful in the world ; the streets are broad and regularly laid out, well paved, clean, and provided with wide footpaths ; the houses are generally handsome, and their flat roofs, ornamented with shrubs and flowers, have a pretty appearance, and form an agreeable promenade. Many of the public buildings are magnificent, surpassing those of any other American city. The cathedral is a splendid edifice, of which the centre is surmounted by a dome resting upon 4 beautiful columns, and the front is adorned with 2 lofty towers, ornamented with statues and pilasters ; the gold and silver ornaments in the chapel, attached to the cathedral, are the richest in the world. Opposite the cathedral on the same square, is the government-house, an immense quadrangular building, nearly a mile in circuit, in which, besides the president's house, are contained the mint, the national library and printing office, a prison, &c., and in the spacious grounds attached to it, is the public botanic garden. There are several churches and convents, which are equally remarkable for beauty and grandeur of style, their vast extent, and the richness of their decorations, among which are statues and altars of massy silver, fine paintings and works of sculpture, &c. The mineria or mining school, the spacious prisons of the acordada, the buildings of the University, the palace of the Inquisition, and the hospital are also worthy of note. The population of Mexico is estimated at about 180,000, of which about one half are Creoles, one fourth Indians, and the remainder of mixed races.

In the vicinity of Mexico is *Huehuetoca*, celebrated for the desagua or canal by which the waters of lake Zumpango are discharged into the river Tula. It is one of the most gigantic works of the kind ever constructed, being about 13 miles in length, and in some places 197 feet in depth, and 360 at top in breadth. *Guadalupe*, a little village, is remarkable for a rich shrine of the Virgin Mary, to which thousands of pilgrims annually resort. *Otumba*, a small town to the northeast of the capital, contains some remarkable monuments of the Aztecs of ancient inhabitants of Mexico, among which are two teocallis or Mexican pyramids.

Puebla, the capital of the State of the same name, is situated on an elevated plain, in the midst of a fertile country. It is inferior only to the capital in population and beauty, being regularly laid out, containing many handsome buildings, and having an active trade and important manufactures. Population, 70,000. The churches and monasteries resemble those of Mexico in extent and the richness of their decorations. The cathedral, a vast and superb edifice, with magnificent ornaments, and the house of religious retreat, the richest charitable institution in the world, are among the most remarkable buildings. The Palafoxian seminary is one of the best institutions for education in Mexico. In the vicinity are *Cholula* and *Tlascala*, noted for their ancient greatness, before the conquest of the country by the Spaniards. The latter is the capital of the Territory of the same name, situated between the States of Mexico and Puebla.

Oaxaca, capital of the State of the same name, lies in a beautiful valley, and is one of the prettiest cities in the Mexican States. Population, 30,000. *Vera Cruz*, the principal commercial place in the confederacy, is prettily built and regularly laid out on the borders of the gulf of Mexico; but it is situated in an arid plain, surrounded with moving sand hills, and is rendered unhealthy by the marshes in its neighborhood. The water is also bad, and the heat excessive. The black vomit or yellow fever carries off a great many strangers. Population, 10,000. *Xalapa* in the vicinity, is delightfully situated, and its cool, clear sky, and beautiful gardens and groves, render it an agreeable retreat from the intense heat and sickly air of the port. It contains 13,000 inhabitants. The other principal towns in the State of Vera Cruz are *Orizaba*, a flourishing place near the volcanic mountain of that name, and *Cordova*, noted for the extent of their tobacco plantations; and *Perote*, which contains a citadel and a military academy, and near which rises the lofty peak called the coffer of Perote, to the height of 14,000 feet.

Acapulco, in the State of Mexico, on the Pacific Ocean, is one of the finest harbors in the country, but like Vera Cruz, lying in the hot, low region, is unhealthy. Population, 4,000 *Queretaro*, capital of the State of that name, is distinguished for the beauty of its situation, the magnificence of its edifices, and the wealth and industry of the inhabitants. The convent of Santa Clara is the largest in the world, being 2 miles in circuit, and is said to resemble a little town in its interior. The woolen manufactures of Queretaro are extensive. Population, 40,000.

Guanaxuato, capital of the State of Guanaxuato, is situated in the centre of the richest silver mines in the world, which have rendered it a place of great wealth. It contains a mint, a college, some fine churches, a londiga or immense warehouse, &c. The town and vicinity had formerly a population of 70,000, which has dwindled down to 30,000. *Irapuato* and *Salamanca*, in the same State, have each a population of about 16,000. In the northern part of the State lies the hacienda or estate of Jaral, the proprietor of which is the most extensive landholder in the world; his landed estate in this and the neighboring State of Zacatecas, amounts to about 50,000 square miles, and his live stock to 3,000,000 head.

Valladolid, the capital of Mechoacan, is a well-built city, in which the aqueduct and cathedral are remarkable constructions. Population, 15,000. In the southeast part of the State is the volcano of Jorullo, which suddenly rose out of a plain in 1759, to the height of 1,600 feet, and has continued burning ever since.

Guadalaxara, capital of Xalisco, one of the most important States of the confederacy, is a large and beautiful city, inferior in wealth, population, and magnificence only to Mexico and Puebla. Its streets, broad, airy, and straight, its 12 fountains, supplied by an aqueduct 15 miles in length, its 14 squares, and its pretty alameda or public walk, give it an appearance of elegance which is heightened by the magnificence of the public buildings, and the neatness of the dwelling-houses. The cathedral is a vast building surmounted by 2 towers, and richly ornamented with gold and silver lamps and vessels, and fine paintings of the Spanish masters. Several other churches and convents, the mint, the university, and the college, are also fine structures. Guadalaxara has about 60,000 inhabitants. The port of *San Blas* in this State contains a navy-yard. The situation is unhealthy, and the town contains but 3,000 inhabitants, who desert it in the sickly season. *Zacatecas*, capital of the State of the same name, owes its importance to the rich silver mines in its vicinity. There are here a college, a mint, and the magnificent church of our Lady of Guadalupe. Population, 22,000. *Aguas Calientes*, *Sombrerete*, *Fresnillo*, *Pino*, and *Nochistlan* are the other principal towns in the State, and contain each from 12,000 to 15,000 inhabitants.

San Luis Potosi, capital of the State of San Luis Potosi, is one of the most important commercial cities in the country, being the natural depot for the trade of Tampico with the northern and western States, some of which it also supplies with various domestic fabrics. Including the suburbs, the population amounts to nearly 50,000. It is well built, and contains several convents, remarkable for their extent, a mint, a college, and numerous churches. *Tampico*, in the State of Tamaulipas, near the mouth of the river of the same name, is a thriving town, and has considerable foreign commerce. Population, 5,000. The old town of Tampico, on the south side of the river, in the State of Vera Cruz, is in an unhealthy situation.

Chihuahua, capital of the State of that name, is a large and handsome city, on a branch of the river Norte. Its principal church is one of the most splendid in the Mexican States; the State house and military academy are also worthy of note. In its neighborhood there are rich silver-mines. According to some travelers, Chihuahua had once a population of 70,000 souls, but it is now very much reduced. The city of *Durango*, also the capital of a State, and situated in a rich mining-district, contains a mint, a college, and other public buildings. Population, 22,000.* *Santa Fé*, the capital of the Territory of New Mexico, is a thriving town, remarkable as the emporium of the over-land trade carried on between the United States and the Mexican States, by caravans. It has about 3,000 inhabitants.

Upper California contains a few small towns and missions on the coast, but the interior is wholly occupied by independent Indians. *Monterey*, the principal town, has 2,500 inhabitants. The harbor of *San Francisco* is one of the finest in the world, being safe, capacious, and easy of access. The missions are stations in which the converted Indians are collected under the care of a priest.

3. *Agriculture.* Although the inhabitants are nourished by the soil, yet agriculture is by no means in a flourishing condition. The variety of soil and climate, however, furnishes a corresponding diversity of cultivated as well as indigenous vegetation. The temperate regions are favorable to the cereal grasses, and all the culinary vegetables and fruit trees of Europe thrive. The cultivation of sugar-cane, indigo, cotton, vanilla, cocoa, and tobacco, has been successfully prosecuted.

4. *Commerce and Manufactures.* The inhabitants are chiefly devoted to agricultural and mining operations, and the commerce is not extensive. The principal articles of export are gold and silver in bullion, coin, or ornamental work, hides, cochineal, vanilla, jalap, &c. The imports are cotton, woolen, silk and linen goods, quicksilver, which is used in the extraction of silver from the ore, paper, &c. Commerce is principally carried on by foreigners. The cotton and woolen manufactures, formerly considerable, have declined; jewelry, and gold and silver ornamental work, leather, soap, and tobacco are the chief productions of manufacturing industry.

5. *Inhabitants.* The inhabitants of Mexico are generally divided into 7 distinct races, though there are various definable and indefinable intermixtures of all these. In the first class are the Europeans. The word European, once meant in Mexico only a Spaniard, as all others were excluded by the colonial policy of Spain. The recent exasperation of parties, however has produced a reaction and driven away most of the natives of Old Spain. The second race consists of the Creoles, or native whites of the European race. In these were found the titled nobility. They have many of them large estates, and, though the most enlightened class, are not always people of much intelligence or of very strict morals. The third race comprehends the Mestizos, or the offspring of whites and Indians. They are as numerous almost as the Indians. They are nearly white, and have a skin of beautiful delicacy and transparency. They are more gentle than the mulattoes. Quarterons are the offspring of a white man and a mulatto, and the children of a female Quarteron and white man are called Quinterons. The next in descent with a white are considered white. The fourth race is that of the Mulattoes, or the offspring of whites and negroes. They are shrewd and have great volubility. The fifth race is that of the native Indians. The sixth comprehends the African negroes and their descendants. The native negroes are a fine race, having the thick lips of the African, but inheriting the

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* This city is infested in a singular manner by scorpions. "They come out of the walls and crevices in May," says Pike, "and continue for about a fortnight in such numbers, that the inhabitants never walk in their houses after dark without a light, and always shift or examine the bed-clothes, and beat the curtains previous to going to bed; after which the curtains are secured under the bed. The bite of these scorpions has been known to prove mortal in two hours. But the most extraordinary circumstance is, that, by taking them 10 leagues from Durango, they become perfectly harmless, and lose all their venomous qualities."

straight hair of the Mexican. There are but few of them, and all are either free or under the protection of laws whose eventual operation is to liberate them. The seventh is the offspring of negroes and Indians, called Zamboes or Chinese.

The Indians form about two fifths of the whole population. In no other country has the aboriginal race survived the process of civilization, and here their number is on the increase. They are hardy, and though subjected to frequent privation, live to a great age, often to 100 years. Their hair seldom turns gray, and they are in the country a well-formed race. Perhaps the only modern giant perfectly well proportioned, was the offspring of an Indian and Mestizo ; he was 7 feet and a quarter high. There are now hardly any other classes of people than the rich and poor. The titled nobility were always Creoles, and were the highest. The lawyers, merchants, and shop-keepers are next in influence. The most numerous, and lowest, is the disorderly rabble that infests the cities, especially Mexico, where there are 20,000, who beg, steal, and, as a last resort, work for a subsistence. They resemble the Lazzaroni of Naples, and live much in the open air. They are partially fed by the convents, which have charitable funds for the daily distribution of food to the poor.

6. *Dress.* The fashion of dress in all the American countries is somewhat unsettled, but generally well adapted to the climate, and to the habits of the people. The European dress is common in Mexico, and has always been worn by the better classes. Still a great many picturesque dresses are seen, more distinguished for finery than simplicity. The equestrian dress is of all the most costly and showy. The horse too is so covered with trappings, that he jingles as he moves. The pummel of the saddle is inlaid with gold, and the whole apparatus often costs 500 dollars. The equestrian dress is surmounted by a low-crowned leather hat, edged with gold or silver lace, and with a brim of 6 inches. The jacket is embroidered with silver or gold, or trimmed with fur. The breeches are of a pea-green or bright blue, open at the knee, and studded at the sides with brilliant buttons. The leg is cased in embroidered leathern boots or hose, attached by a garter to the knee. At the ancle commences the shoe, which at the top swells out 6 inches like a scallop shell. The spurs weigh about a pound and a half, and have rowels 12 inches in circumference, together with a small bell attached to the side, so that a Mexican cavalier seldom makes a silent advance.

Over all is worn a rich cloak, which, together with the whole dress, is very expensive. Two hundred dollars are sometimes given for the boots, though 80 is a liberal price ; a jacket, not very fine, costs as much. A gentleman would hardly wear a hat worth less than 20 dollars, and his breeches, if at all respectable, will stand him in at least 60 dollars more. Spurs and embroidered stirrup leathers are sold at 20 dollars, plated bridles at 22 ; an ordinary *manga*, or cloak, at 100 dollars, and a rich cloak at 300. There is in Europe nothing like this dress ; it is exceedingly showy and picturesque. In the streets men and boys appear in long cloaks ; at home they wear jackets of printed calico. The morning dress of the ladies is generally black ; and the females of Spain are not more solicitous than those of Mexico to display a neat shoe and a small foot. On holidays the colors are very gay, and the country ladies wear a profusion of spangles. Shawls, covering the head and bust are often worn. These fashions, though common, are not universal. A traveler who left at Xalapa for a few months Ackerman's book on fashions, found on his return an entire revolution in female dress, founded upon the English model.

The dress of the Indians is slight, and resembles that of the laboring class. It consists in leather breeches and jerkin, with sandals or shoes of hide. Sometimes, however, the Indians have no covering but a tattered petticoat or a blanket, with a hole in it through which to thrust the head. On holidays they deck themselves in gaudy flowers and feathers. They wear sometimes in the ear the glancing feathers of the humming bird. The hair of the Indian is cut close in front, but hangs down in two tails at the side.

7. *Language.* The general language is the Spanish. The languages spoken throughout Mexico are, however, more than 20 in number. Among the native dialects the Aztec, or Mexican tongue is the most widely diffused. This language is not agreeable to the ear, and some of the words are of 11 syllables.

8. *Manner of Building.* The city of Mexico is, from its numerous and spacious squares and its neat and imposing edifices, one of the most beautiful cities in the world, and may be ranked with Philadelphia, Berlin, or Naples. The private as well as public buildings are magnificent. They are of 3 or 4 stories, with terraced roofs and iron balconies. Generally they are of a quadrangular shape, with open courts ; the interior piazzas have large china vases of

evergreens. Perhaps the most imposing edifice is the cathedral, which is in the Gothic style, and would do honor to any city in Europe. The provincial cities are some of them as well built as the capital, and the haciendas which are scattered over the country are large and substantial edifices of stone, with out-houses of the same. But Mexico is the country of inequality, and this appears in nothing more distinctly than in the dwellings of the rich and of the poor. The houses of the rich are elegant ; the huts of the indigent, hardly comfortable ; the latter are of various kinds, generally a mud cottage or a mere wicker of canes, costing about 6 dollars.

9. *Food and Drink.* Maize or Indian corn is the principal material for food, especially on the table-land. The preparations of it are various ; the most palatable and general are tortillas, a sort of pancakes. These are spread with chile, a kind of pepper ; and they are so much esteemed, that in great houses a woman is kept expressly to make them, who is called, by virtue of her office, Tortillera. The maize is also much used in a sort of gruel, sweetened with honey, while a drink is made from it resembling cider, and another resembling beer. After maize, the fruit of the banana and the flour of the manioc are the most consumed. The banana is eaten fresh and dried. The fruit is often 8 inches long, and a cluster has sometimes 180 fruits, weighing 80 pounds. The plant is cultivated with little care, and produces in a few months after it is planted ; 1,000 feet of land will sometimes produce 4,000 lbs. of nutritive substance ; and the root is made into sweetmeats. The root of the igname is also used as food, and it sometimes weighs 60 lbs. The potato and yam are also extensively used, and bread is made also from the juca root, which yields the flour of manioc. From the situation of Mexico, where the land gradually rises to a great altitude, almost every plant used for food in different climates, is successfully cultivated. The number is wonderful. Food is therefore so abundant, that the labor of a man for 2 days will, in most places, supply a family for a week. The olive and vine produce well, though neither are cultivated to a great extent. In the city of Mexico, the consumption of meat is greater to the individual than in Paris. The flesh of animals is often sold in the markets cut up into strips, and measured by the yard ; it is also dried and preserved in the same form. Beef and mutton are general, but there is no veal ; butter is dear and ordinary, and there is little cheese. Milk is at least genuine, for it is sold in the udder, and drawn from the cow before the purchaser. Beef, in the city of Mexico, generally sells at 12½ cents for the 28 ounces ; mutton, 12½ a pound ; eggs, 25 cents the dozen. Small fish from the lake, a dollar the dozen ; turkeys a dollar each, fowls 75 cents the pair ; peaches 5 cents a dozen, pears 75 cents, oranges 33, and pines 12½ cents each.

The vegetable and fruit market is a beautiful sight for a foreigner. The Indians, who are generally the gardeners, display fruit in cones and pyramids to the best advantage, and decorate their stalls with gaudy flowers. The stalls have, besides tropical productions, all the usual garden vegetables of Europe. Of drinks, there are in Mexico, unfortunately, too many that intoxicate, and their injurious effects are too apparent upon the Indians and poorer population. The most usual drink, not excepting perhaps even water, is the pulque, a liquor produced from a variety of the *Agave Americana.* The taste is agreeably acid, and it is, perhaps, of all intoxicating liquids, the least hurtful. It is the juice of the plant, obtained by cutting off the shoot just before it is bursting out to flower ; it is so hollowed out, that the juice fills the cavity left ; and so abundant is the sap, that it is dipped out several times in the day. A plant, even in a barren soil, produces 150 bottles of pulque, though it is about 16 years before it will do to make the incision. Humboldt calls the maguey the vine of the Aztecs, and the natives prefer the pulque to all wines, and their preference is justified by many Europeans. A very intoxicating brandy, called *mexical*, is distilled from the pulque. The pulque has, unfortunately, the best flavor when it has the least fragrance, as it has often when in the best state a fetid odor, though, as this is not universal, it may perhaps, when the cultivators have more skill, be remedied. The consumption of pulque is enormous in the city ; 44,000,000 of bottles are consumed annually. There is some wine made in Mexico, but not of a good quality ; and the Europeans use the wines of Europe.

10. *Diseases.* A plague has at different periods swept off the Indians. It is supposed by some to be the black vomit. The smallpox has also committed its ravages. Generally Mexico is salubrious on the high land ; but on the coast it is subjected to the fevers that are common in the West Indies.

11. *Traveling.* Their is little traveling in Mexico, and of course the accommodations for travelers are far below excellence ; they are, perhaps, as bad as in any other civilized country ; and although the exclusion of all Europeans except Spaniards, is no longer enforced (but the

terms of it reversed), there are yet too few of them in Mexico to increase the facilities or comforts of travelers. The natives seldom wander beyond the precincts of their own neighborhood, though there are many inducements to travel. In Mexico nature has been profuse in blessings ; it is a country made up of the beautiful and the grand, and yet it is a service of toil and peril to explore the most frequented parts. It is surrounded by a sickly line of coast, where the gates of death are always open. The malaria that spares the native is fatal to the stranger ; under a beautiful sky, surrounded by the magnificent vegetation of the tropics, the foreigner inhales the airs of fragrance, that are loaded with death. Yet the foreigner explores Mexico, while the native feels no curiosity. The stranger may pass from Vera Cruz to Xalapa, which is elevated to the region of health, and flatter himself that he has escaped the danger, yet the *vomito* may be in his system, and destroy him in a day.

It is seldom that a mother country expends much treasure in making roads for a colony ; the relation is too generally that of a stepmother. Nor is it often that a country in the midst of revolutions, can advance internal improvements. Much, however, was done in this way for Mexico by Spain. Roads were begun and more than half completed, which, when finished, would have rivaled the road of the Simplon, and whose bridges would be monuments of art in Europe. Where the roads are imperfect, the vehicles for traveling must have more strength than elegance, as safety is to be consulted before luxury or comfort. It is not always, therefore, that the coaches in Mexico are furnished with springs, as they are of a size to require 8 or 10 mules to draw them. They are like houses in New England, that we sometimes see removed by great animal power.

A traveler who goes from the coast to the city of Mexico, even over the most frequented route, must move like an emigrant in our Western States, taking with him his household goods. The inns afford little but shelter, and that of no enviable kind, and he must carry beds, provisions, and means for defence. The *haciendas* are substantial farm-houses, and often with a shop and church annexed ; yet they furnish little but provender for horses and mules ; few of the proprietors will from motives of interest or hospitality minister much to a traveler's comfort and no intelligent wayfarer expects either neatness or comfort. A *posada* is often but a shed, open like a bird-cage at the sides, and whatever passes within may be seen without ; beds there are none, and he is most fortunate, in a company of travelers, who secures a bench or table to stretch himself upon. In the haciendas, a single large hall only is given to travelers, and here, as in the inns, there can be no altercation for a choice of beds. In the inns, however, there are several small rooms for travelers. The usual price for this shelter is a quarter of a dollar. The Mexicans, however, if of humble pretensions as publicans, are yet excellent traveling servants, faithful, obliging, and of great good-nature. To call them honest, is but to say that they have the national character ; the baggage is often left undefended, under a shed, though the unquiet state of Mexico has been a school to produce robbers, that now infest the broken parts of the country.

The Mexican horses are also well adapted to traveling ; they are small but spirited. They have a peculiar gait, called *paso*, and so little is any other in esteem, that to trot is considered as a defect in a horse, and reduces his price two thirds, or to 50 dollars. A good horse will go in this gait 6 miles an hour, and the motion is so gentle, that the rider is hardly moved in his seat. The fore feet are raised high as in a gallop, while the hindmost feet are drawn along the ground.

The mule, however, is preferable where the roads are steep and rough ; he is more patient, hardy, and sagacious in picking out his way. In roads impassable for wheels, — and in Mexico they are not a few, — the mules carry a *litter*, which is a sort of palanquin, with 2 long poles ; the poles are passed through the saddle of the mules, like the shafts of a carriage, so that 1 mule goes before the other behind the litter. The motion of a litter is very easy.

In Mexico the whole day's journey is commonly performed at one heat ; the muleteers seldom stop to bait. It is thought to be better for the animals to give them a long time for rest and food ; food they cannot take without water, which it is dangerous to give them in the quantities they require, till the labor of the day is done. In the morning it takes nearly 2 hours to finish the preparations for starting. The mules often escape, when they can only be taken with the lasso, or a long rope with a noose, that all Mexican horsemen use dexterously, and generally have attached to the pummel of the saddle. The moment the mule feels the lasso thrown upon him he stands perfectly still, but till then will not suffer himself to be taken In steep places, where the carriage might otherwise lose its balance, the outriders attach the lassos to it, and not only preserve the balance, but aid in drawing it. The mules and horses are never littered; they sleep on plank or stone; a curry-comb is unknown, but the animals are frequently washed.

It is to be remarked, that although the horses and mules are generally excellent, yet this description does not always apply to those furnished to travelers. Mr. Poinsett had occasion thus to describe "the progress of dulness"; "We set off at a gallop; this lasted till we cleared the gates; it was then sobered into a trot, shortly after into a walk, and at the end of 4 miles we stood still." The same traveler had afterwards to send back for one of his servants, who was found asleep upon his horse, the horse having favored him with a rest of some hours. Man and horse were found motionless as the statue of Charles the Fourth, that stood in the great square of Mexico. The country ladies often ride upon the same horse with a gentleman, though there are no pillions; the gentleman rides behind, supporting his companion with one arm. It is also a common mark of politeness to put his own wide hat on the lady's head, and tie up his own with a handkerchief.

11. *Character*, *Manners*, &c. The character of the Mexicans is as much mixed as the races and colors of the people. They are ardent, generous, and hospitable, but not as the Europeans are hospitable; the Mexican asks you to his house, and requests you somewhat hyperbolically to consider it and all that it contains as your own, yet he never gives a dinner to welcome the arrival of any stranger. Having introduced him to his house he has done all that he feels it incumbent on him to do; yet he is never better pleased than when strangers call without ceremony or especial invitation. Every succeeding visit of this kind gives an agreeable insight to Mexican life. It is in social intercourse, that the character of a people may be the best learned.

A Don, even in Mexico, has something of the dignity of his chivalric origin, — with the stately he is stiff, yet he never fails to meet all advances of those who seek his good will. All the ceremony that is to be expended upon him is called for in the outset; and if Mr. Poinsett's description be exact, the Mexican grandee is easily conciliated. Poinsett remarks, "Sir Archy may have bowed lower but not oftener in a day than I have. Remember, when you take leave of a Spanish grandee, to bow as you leave the room, at the head of the stairs, where the host accompanies you, and, after descending the first flight, turn round and you will see him expecting a third salutation, which he returns with great courtesy, and remains till you are out of sight, so that, as you wind down the stairs, if you catch a glimpse of him, kiss your hand, and he will think you a most accomplished cavalier."

Mexican.

The Mexicans are a cheerful race, and in this respect resemble the French more than any people of America; their parties or tertulias are lively and easy. The Mexican is ostentatious in his dress and in his equipage; his carriage, with 4 large mules, stands harnessed for hours in his court, not to be used but to be seen. The trappings are not, indeed, in the best taste, for they are overloaded with shining plates of brass, and the tails of the mules are enclosed in stout, leathern bags. The pannels of the coaches are often painted with some classic subject; the favorite one of late is Guido's Aurora. The gaming spirit, and an indolence natural to the south, has reduced many old families in their circumstances. This has been so grievously and perhaps generally felt, that the laws have provided "a national establishment for affording temporary relief to persons in pecuniary distress." This is no other than a pawn-broking institution, which is under the direction of a respectable ecclesiastic. The rooms are filled with articles of great value, — services of plate, one piled upon another, — gems, jewels, pictures, furniture, statues, crucifixes, and everything that denotes splendor and decay. The court is filled with applicants, of which many come to obtain the means of gaming. A stranger in Mexico is struck with the appearance of the milliners' shops, where 20 or 30 stout men, in moustaches, are employed in making muslin gowns, caps, and artificial flowers. The foreigner is, however, less tempted to smile at another general custom, which permits the ladies of Mexico to smoke cigars. At home or abroad, in the carriage, at the theatre, at balls, the cigar is always at hand.

The demeanor of the Indians is grave and melancholy; they have some taste for music, but their songs are sad. They have a great talent for drawing, and, if they would persevere, could excel in the art. They have much skill in modeling in wax and carving in wood. Their sense of the beautiful has survived their political degradation ; and they have now the same passion for flowers that was noted by Cortez. The Indians are a gentle race, and their materials for happiness are few ; they consist in a banana, a hammock, and a guitar. They are darker than their southern neighbors, resembling in countenance the Mongul race, though there is no people in whom there is so slight a projection of the forehead. They attribute their former state of civilization to a mysterious personage who arrived several centuries ago, introduced the arts of peace and abrogated human sacrifices to the gods. The priests made no difficulty in believing this person to have been Saint James ; for faith rises in proportion to the want of evidence. The Indians having little else to love, adhere tenaciously to their old customs. The priests, in indoctrinating the Indians into the mysteries of the Catholic religion, were obliged to incorporate with it many superstitions. The ceremonies are indeed changed, but the creed of the Indian is not very clear, though he loves fire-works, processions, and festivals. As the priests are somewhat addicted to miracles, several were used in conversions ; and the fire of a lens was concentrated on an Indian's arm, to convince him, that the sun was a body of fire, and not the Creator. A picture of the torments of the unconverted was shown them, and the terror it inspired turned to advantage.

As a class, the Indians are poor and miserable. They live mostly in the more barren districts, and feed on fruits of easy cultivation. The necessaries of life are so abundant, that there is little need for exertion ; some few of the Indians, however, possess considerable property. Were a stranger to see the edifices in the Mexican cities, he would not infer the existence of poverty, — but at the sight of an Indian hut, he could imagine the existence of but little else. In the cities they are more degraded than in the country, and it was remarked by a traveler, that he never saw a white tell an Indian to do anything that was not executed without remonstrance. There is no warrant for injustice, however, in the laws. But the Indian has little restraint over his propensity for pulque, and is often intoxicated. In the city of Mexico tumbrils are sent round by the police to take up those who are drunk. These are kept a night, and made to work in the streets for three days with a ring around their ancle.

The Indians are by law free, and have the rights of other citizens ; yet they are much oppressed. They are often kept as laborers for years, against their own will. A small sum is advanced to one of the improvident race ; it is expended in *pulque*, and the debtor is shut up in some mine or factory to liquidate the debt by labor. Here food, clothing, and brandy are furnished him, for which he is charged ; and there is little chance of his obtaining his freedom, till he is of no use to his creditor. The creditor has, or assumes, the right of a master, and may flog his debtor without mercy. The Indians are allowed magistrates of their own race, if this be an advantage ; though the Caziques seem to understand the principle, that leads men politically degraded to oppress those below them. The grade of the Caziques cannot be discovered by their superior dress or greater intelligence.

There is now in Mexico little distinction of mere color or caste. There was formerly a great hatred between the castes, but this is ended in the broader distinction between American and European. Several Indians are deputies to Congress. There has been an Indian judge in the Supreme Tribunal at Durango, and Guerrero is known to have had a great mixture of the African blood. The change in this respect has been wonderful. The acknowledged patent of nobility was once the hue of the skin ; and it was common to hear one say to another, in the heat of dispute, "Do you think me less white than yourself ?" Next to a skin perfectly white, it was considered advantageous to have an order of court to that effect. Sometimes, however, when the skin was too dark for the desired decision, the court would order, that the applicant should be "considered white."

12. *Amusements.* The amusements of the Mexicans preserve much of the character of their Spanish origin. Bull-fights are therefore common, though they are less sanguinary than in Spain. A description of them will be deferred to the article on Spain. Gaming is so general among all ranks, that it is rather an employment than a pastime. Games of cards are to be seen in the public squares, carried on by animated groups, who hazard their last coin, and the very cloak upon their shoulder. This spirit of gaming is the characteristic and the bane of Mexico. Ladies, priests, soldiers, laborers, Indians, are all addicted to it. The players, however, notwithstanding their ardent character, lose with much equanimity, and show little exultation when they win. The origin of this spirit of gaming is to be referred to the mining

employment, which is generally uncertain, and in which much is risked that more may be gained. Gaming is the very passion to find aliment in El Dorado. The original conquest of Mexico was one of unequalled hazard. All was put at stake, and all was won. The descendants of the conquerors cultivate the same spirit; and in Mexico there is no *tertulia*, no social meeting whatever, without gaming.

The favorite national pastime is cock-fighting, and it is amusing to a stranger, who partakes not in the excitement, to see the zeal of all that engage in it. The cock-pit is neutral ground; it is like the place of the Olympian games, a spot where all conflicting ranks and parties may meet in peace, and upon terms of strict equality. Here a general is to be seen betting with a fellow in rags; for people apparently in the depths of poverty, often hazard a doubloon. All ranks meet at the cock-pit. The money staked is put into the hands of brokers, who pay it over to the winners, and receive a small gratuity from each. As the birds are armed with slashers, the contest is not long. A large sum accrues to government from licenses for the pits. At Guanaxuato, a traveler, who was annoyed all night by a general crowing, beheld in the morning more than 100 cocks arranged on each side of the street, and chained together. They belonged to the commandant, who was an amateur.

13. *Education.* The surface of society has not of late been sufficiently calm for the extension of the means of education; and though there are a few Lancasterian schools, the facilities for obtaining a good education are perhaps less than they were under the sway of the Spaniards. Ample legislative provision, however, has been made, though little else has been done. The old school of Mines has no longer any students, and the very edifice is in ruins. The funds have been directed to other purposes. It formerly educated many young men as practical engineers, and in all useful branches of learning, but especially in natural philosophy. The *University*, though well endowed, has at present but few students, though there have been 200 at a time. The library is small. There are some inferior colleges and several large schools, under the direction of the clergy. The education of the higher classes is generally private, and, of course, it is seldom thorough. There are no large bookstores, and but few private libraries of a valuable kind; the library of the cathedral, however, is large, though the books are chiefly on theological subjects.

There is little diffusion of knowledge, though generally all the inhabitants of cities can read and write. It is not rare to see men in the streets in the garb of extreme poverty, reading the gazettes, which are published in Mexico on every other day. There may be seen in the streets too, as at Rome and Naples, scribes, to read and answer the letters of those who are unable to perform these services for themselves. Medical and chirurgical knowledge is in a low state; dissections are forbidden by law, or prohibited by public opinion. The course of instruction in the colleges includes a little Latin, some philosophy, law, and such theology as the clergy are able or willing to communicate. The education of females is neglected, though they have shown themselves endowed with the power of making much in this way, of few advantages, and some of them have become intelligent in spite of the deficiency of the usual means of instruction.

14. *State of the Arts.* If we except architecture, there are few monuments of art in Mexico. The churches are profusely decorated, but the images and paintings are gaudy without beauty. There is, however, a talent for the imitative arts, that needs only favorable circumstances to bring it forth. When instruction was given in drawing at the school of Mines, the rapid proficiency of some of the students was almost beyond parallel. The Indians show much talent in this way, and they make clay models of the different races, and their costumes, with admirable fidelity. There was lately in the great square at Mexico a bronze equestrian statue of Charles the Fourth, till it was removed, from republican scruples. It was the production of a Mexican, Tolsa; and it is considered inferior only to the statue of Marcus Aurelius, at Rome. The school of Mines has a valuable collection of casts, purchased by the Spanish government. And the Laocoon, the Apollo Belvidere, and other statues of antiquity, are found in the new world, at an elevation equal to that of the convent of St. Bernard in the old.

15. *Religion.* The Roman Catholic is the religion of Mexico, and there are few believers in any other; the distinction is strongly defined by the laws, that it is not lawful for a Protestant, until converted, to marry a Catholic. The influence of the clergy is of course very great, though it is on the decline. The clergy had a great agency in producing the first revolution, for they shared in all the disadvantages and disabilities of the Creoles. The number of

the clergy is about 10,000, half of which are regular and wear the cowl. Including lay brothers and servants, the number may be increased to 4,000 more. Formerly they held large estates in mortmain, but their possessions have been reduced from 44,000,000 to less than 20,000,000. The greatest riches were in charges left by the pious on lands, for pious uses. These have been sequestrated both by Spain and Mexico. The greatest salary of any bishop is 130,000 dollars, and the least is 6,000. The income of the parish priests depends much upon the disposition and skill of the incumbent; the tithes do not produce any regular or certain sum, and the chief support of the priests comes from marriages, baptisms, burials, and masses. The marriages are celebrated with some pomp, and the fee for the priest, even from parties of the lowest rank, is no less than 22 dollars, and this in a country where the houses of the poor cost but 4 dollars, where the price of labor is a quarter of a dollar a day, and where the church observances leave but 175 working days in a year. This onerous tax upon marriages cannot but have an unfavorable effect upon public morals. There is little ceremony in Mexican funerals, the body is carried away in a common coffin from which it is turned into the earth. The coffin is used rather as a vehicle than a sarcophagus. Few monuments are erected over the dead. There is, however, a bust over the tomb of Cortez. There is 1 archbishopric and 9 bishoprics, 7 of which, together with 79 benefices attached to the Cathedral, are now vacant. The court of Rome has refused to present, under the political state of Mexico; but, should this refusal be continued, it is probable that the government will itself assume the right of presentation. Almost every house has an image of the Virgin of Guadalupe, or of the crucifixion, but there are so few Bibles, that one is sometimes shown as a curiosity.

16. *Government.* The government is at least nominally republican. After the prolonged struggle with Spain for independence, the government fell into the hands of Iturbide, a Creole, who caused himself to be proclaimed emperor of Mexico in 1822. This short-lived empire was overthrown in the following year, and in 1824 the Mexicans adopted a constitution modeled on that of the United States. This constitution was not, however, sufficient to prevent civil dissensions, and the sword was too often appealed to, to decide the claims of rival chiefs or factions. But it preserved a nominal existence until 1835, when it was abolished by a decree of Congress, suppressing the State constitutions, and establishing a central government. Under this new order of things, which has only been partially established by force of arms, the president is chosen by an indirect vote, and the departments, as the new divisions are called, are governed by officers appointed by the national government. Several of the States are still in arms in opposition to the execution of this revolution. Owing to the unsettled state of the country for so many years, nothing certain can be stated as to its revenue and army. The want of good harbors and a seafaring population, will prevent Mexico from becoming a great naval power.

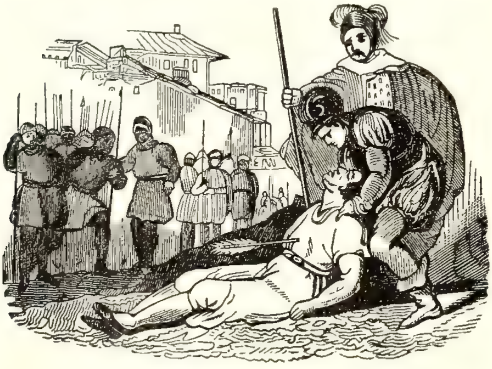
17. *Antiquities.* The ancient Mexicans, though they knew not the uses of iron, nevertheless constructed some of the greatest works of labor that are found upon the earth, — works that in point of magnitude may be ranked with the monuments of Egypt. Few people, indeed, have moved such masses as the Mexicans; the most prominent of their antiquities are pyramids or mounds of a pyramidal shape. The bases, however, are much longer than those of the Egyptian pyramids. At Cholula the base is in length 1,400 feet, nearly double that of the great pyramid of Cheops. The present height of the mound at Cholula is 177 feet, which is more than that of the third pyramid of Ghize. The materials are unburnt bricks and clay, in alternate layers. It is covered with vegetation, and looks at a distance like a conical hill. It is of 4 stories, which diminish in size, having a terrace or platform around each. In cutting through a part of this pile to make a road, a square chamber was discovered built of stone, and supported by beams of cypress. It was perhaps a chamber of the dead, though there are few funeral monuments in Mexico.

There are many of these *teocalli* or pyramids scattered over Mexico, and they have great coincidence in form with the most ancient monuments of Asia. Some were constructed of smooth stones; in the Mexican cities they were as numerous as mosques in Moorish towns, and Cortez gave them the same name. In the Mexican valley are 2, one called the house of the sun, and the other the house of the moon. The former has a base of 682 feet, and is 180 feet in height. The faces of these are nearly north and south, and in some other pyramids they are exactly so. Around these two pyramids, are several hundred minor ones, disposed in parallel streets. Near Tezcuco is the bath of Montezuma, on a mountain covered with architectural ruins. The bath is cut with mathematical precision, in a hard, porphyretical rock; it is highly polished, and stands out like a swallow's nest in the side of a house; it is 12 feet long, 8 feet wide, and has in the centre a well 5 feet deep. It is surrounded by a low parapet, in which there is a cut, the representation of a chain, such as is drawn in the ancient pictures as belonging to kings.

There is a dilapidated monument called the Fort of Xochicalco, on an insulated hill surrounded by trenches and divided by art into 5 terraces. Its sides exactly face the cardinal points. There are various fragments of porphyry well cut, with figures of crocodiles spouting water, and of men sitting like the Asiatics, cross-legged. On the top, which is a square surface of 100,000 square feet, there are the ruins of a small edifice. In the province of Oaxaca are the ruins of an ancient Mexican city, where many of the walls are ornamented in what we call *grecques* and labyrinths, in Mosaic, of small stones. The designs are much like those in the vessels called Etruscan. There are here 6 porphyry columns without capital or base, placed in a large hall to support the roof. Their height is 16 feet, and the general disposition of them, and of the other ruins, bears a resemblance to the remains in Upper Egypt.

All recent investigations support the descriptions given by the conquerors, of Mexican architecture. The remains are massy. In the palace of Mitla, there are stones more than 19 feet in length, 5 feet in breadth, and 3 in the thickness. The pyramid of Papantla, which was discovered but about 50 years ago, is composed altogether of large blocks of stone smoothly cut. On the borders of Yucatan there are large vestiges of an Indian capital; much of it is of stone, and there are many sculptured figures and bas reliefs. The circumference of the ruin is about 6 leagues. Many however of the Mexican monuments, and all of them in the city, were destroyed by the Spanish conquerors, from motives both of policy and piety. The moveable antiquities of Mexico consist in rude and grotesque statues of stone, in manuscripts or hieroglyphical paintings executed on skins, cloth, and agave paper. There is at Mexico a colossal statue of the goddess of war, which is now buried, that it may not revive the dormant superstitions of the Indians. When it was taken up that a cast might be made from it, the natives dressed it in flowers. "A view of this idol," says a traveler, "is enough to dispel any doubt of the enormities committed before it. Fuseli could have conceived nothing more hideous. The drapery is of twisted snakes, and 2 serpents supply the place of arms. The ornaments are in character. The necklace represents human hands and skulls fastened together by entrails. True it is that the gods of the heathen are devils." This statue is 9 feet high. Within the enclosure of the cathedral, and sunk even with the earth is an ancient mass, called the stone of the sacrifices. It is of porphyry, 9 feet broad. In the centre is a head of relief, surrounded by 27 groups of figures. There is a groove in the stone to carry off the blood of the victims. There is another curious stone called Montezuma's watch, weighing 24 tons. It is of basaltic porphyry, of which none is found within 8 leagues of the city. It is in fact cut into figures, that denote the Mexican division of time, and may, therefore, be called the Mexican calendar. Among the antiquities may perhaps be reckoned a sound cypress tree in the province of Oaxaca, measuring in circumference 93 feet and a half.

23. *History.* Mexico was subdued by the Spaniards under Cortez in 1521. Montezuma was at that time emperor, and fell in defence of his capital. The inhabitants were considerably advanced in civilization; they were acquainted with the arts of working gold, silver, and copper, and with a kind of printing; and their cities were adorned with temples and palaces, and regulated by a police. The country continued a province of Spain till 1810, when an insurrection commenced in Durango, and after a variety of revolutionary movements, Iturbide proclaimed himself emperor, in 1822. His imperial sway was brief. He was banished the country, and a government was established on a model similar to that of the United States. The most important events in the recent history of Mexico are the overthrow of the federal constitution in 1835, the consequent revolt and unsuccessful invasion of Texas, the



Death of Montezuma.

war with France, during which Vera Cruz was taken by the French, and the civil wars between the centralists and federalists. The present state of the country is far from tranquil. Civil commotions are still constantly occurring; and the stability and quiet of real freedom are yet to be experienced.

CHAPTER LV. REPUBLIC OF CENTRAL AMERICA.

1. *Boundaries and Divisions.* Guatemala or the Republic of Central America is bounded N. by the Mexican United States; E. by the Caribbean sea; S. by the Republic of New Grenada, and W. by the Pacific Ocean. It lies between lat. 8° and 17° N., and long. 87° and 99° W., having an area of 185,000 square miles, with a population of about 2,000,000. It is composed of 5 States, which are subdivided into partidos or districts, and of the Federal District, which contains the seat of government.

States.	Population.	Capitals.	Population.
Guatemala	850,000	Old Guatemala	20,000
San Salvador	350,000	San Salvador	40,000
Honduras	280,000	Comayagua	20,000
Nicaragua	270,000	Leon	38,000
Costa Rica	150,000	San José	20,000
Federal District,		New Guatemala	50,000

2. *Mountains.* A lofty chain of mountains, forming a part of the great ***Mexican*** and ***Rocky Mountain*** range traverses the country. It extends along the western coast not far from the Pacific, and presents a series of 21 volcanic summits in constant activity. This part of the country is subject to the most tremendous convulsions of nature, which have buried cities in ruins, and destroyed whole tribes of people. The volcano of ***Agua***, and that of ***Fuego***, both near Guatemala, rise to the height of from 12,000 to 15,000 feet.

3. *Lakes and Rivers.* The largest rivers flow down the eastern declivity of the mountains into the Caribbean Sea. There is none of great extent, but several are navigable. The ***Motagua***, which flows through the State of Guatemala, the ***Ulua*** and ***Segovia*** of Honduras, and the ***San Juan***, 64 miles long, which forms the outlet of Lake Nicaragua, are the principal. ***Lake Nicaragua***, 120 miles in length by 41 in breadth, is navigable for the largest vessels, and receives the waters of Lake Leon, which is 10 miles to the northwest, by a navigable river. ***Lake Leon*** is but 5 miles from the ***Tosta***, which runs into the Pacific Ocean. A union of the 2 oceans through these channels is contemplated. In the State of Guatemala is ***Lake Dulce*** or ***Izaval***, communicating with the Bay of Honduras.

4. *Soil and Climate.* The soil is in general good, and the climate exhibits the same variety as in the Mexican States. The productions are also similar, including indigo, tobacco, cochineal, cotton, wheat, maize, &c.

5. *Coasts and Bays.* In the northeast, between Honduras and the Mexican State of Yucatan, lies the large ***Bay of Honduras***, the navigation of which is rendered dangerous by numerous reefs and keys. On this bay is an English settlement called Balize, formed for the purpose of cutting dye-wood and mahogany. It consists of about 200 whites and 3,000 slaves. A great extent of coast to the south of the bay is occupied by the Sambo and Mosquito Indians, who have never been subdued by the whites. On the Pacific are only open roadsteads.

6. *Towns.* ***New Guatemala***, the capital of the republic, is situated in a pleasant and fertile valley, which enjoys a delightful climate. It was built in 1774, in consequence of the almost entire destruction of Old Guatemala by an earthquake. The streets are broad, clean, and straight; the houses are generally low, on account of the frequency of earthquakes, and provided with gardens and fountains. The cathedral, the government house, the archbishop's palace, the mint, and several of the churches, are handsome buildings. The commerce and manufactures of the city are extensive. Population, 50,000.

Old Guatemala, capital of the State of Guatemala, has been several times destroyed by earthquakes, and lies between the volcanoes of Agua and Fuego. It suffered much from an earthquake in 1830. It formerly contained 50 or 60 churches, and several large convents, which are now in ruins. Its cathedral is one of the largest in America. Population, 20,000. ***Chiquimula***, in the same State, is a place of about 35,000 inhabitants.

San Salvador, the capital of the State of the same name, is agreeably situated, in the midst of fine indigo and tobacco plantations, and has an active commerce and extensive manufactures. Population, 39,000. *Comayagua*, the capital of Honduras, with 20,000 inhabitants, contains a college. *Truxillo* and *Omoa*, in the same State, have good harbors on the Bay of Honduras, but they are sickly. *Leon*, capital of Nicaragua, is regularly laid out and handsomely built, and contains a university and a cathedral. It has 38,000 inhabitants. *Nicaragua* is the second town in the State. *Realejo* has an excellent port. *San José* or *Costa Rica*, with 20,000 inhabitants, and *Cartago* with about 25,000 inhabitants, are the principal towns of Costa Rica.

7. *Commerce.* Cochineal and indigo are the two staple productions, and furnish the largest articles of export. Gold and silver, and cacao are also extensively exported.

8. *Inhabitants and Government.* The inhabitants resemble those of the Mexican States about one fifth are creoles, two fifths mixed, here called ladinos, and the remainder Indians, with a few negroes. Slavery is abolished. The government is a copy of that of the United States.

The following interesting account of the manners and customs of the Guatemalcans is from the work of Mr. Montgomery, who visited the country in 1838, as an agent of the United States. "It is only in the city of Guatemala and a few of the larger towns, that the arts have made any progress. In the country and villages, the simple mode of life of the inhabitants differs slightly from that of the Indians. The ladies in the city wear the mantilla and veil when they go to church, and appear without any covering on the head when going out to walk or on a visit. They adorn their hair with flowers, and high combs, some of which are very costly and beautiful. In the evening the head is protected by a shawl or handkerchief and when on horseback, by a hat, with a profusion of feathers ; but caps are never used. The pride of a Guatemala lady is a richly embroidered veil, a costly fan, and valuable jewels. They are generally well formed and graceful, and are very proud of a pretty foot. The men display their taste for dress chiefly when traveling ; then their swords, their spurs of massive silver, their poniards with silver sheaths, the embroidered trappings of their horses, and their other ornaments, imply an expense of not less than 1,000 dollars.

"Both sexes are amiable, courteous, and attentive to strangers, of a mild disposition, lively imagination, and good natural talents ; but in education they are extremely deficient. Hospitality is one of their virtues, gambling one of their faults, and they are addicted to cock-fighting and bull-feasts. They have a peculiar mode of speaking with a whining accent, not unlike that of the Andalusians, and in some points of pronunciation, they differ from the European Spaniards. Their amusements consist chiefly of dancing, and riding on horseback ; there are no carriages of any kind in Guatemala. Almost every house is open to visiters, and many a small party meets every evening and passes the time in social intercourse. When a stranger is told, that 'the house is at his disposal,' he may consider himself a guest.

"They have a great fondness for religious processions and ceremonies ; these consist of a cavalcade of well-mounted and well-dressed citizens ; then follow a crowd on foot, with lighted tapers ; next come the authorities and the clergy, arrayed in their robes of ceremony ; the bishop, if present, walks under a canopy of silk, embroidered and fringed with gold, and on his approach every head is uncovered, and every knee bent ; a military guard and band bring up the rear. On such occasions the streets are covered with awnings, and hangings of silk and velvet adorn the houses ; the altars glitter with lights, mirrors, and precious metals."

9. *History.* The country was conquered by Alvarado, who was sent from Mexico by Cortez, in 1523. The natives, called Quiches, lived in cities, and some ruins of their works are yet visible. The province was erected by the Spaniards into a captain-generalship by the name of Guatemala, and continued dependent upon Spain until 1821, when it declared itself independent. A constitution was adopted in 1824.

CHAPTER LVI. WEST INDIES.

1. *Situation and Extent.* The West Indies are an extensive cluster of islands, at the entrance of the Gulf of Mexico, stretching from lat. 10° to 28° N.; between the coast of Florida on the north, and the river Orinoco, on the continent of South America ; the Bahama Islands being the most northern, and Trinidad the most southern. These islands were first discovered by

Columbus, who called them the West Indies, on the supposition that they were connected with the continent of India. Sailors distinguish them into the Windward and Leeward Islands; and they are sometimes denominated the ***Caribbee Islands***, the ***Great*** and ***Little Antilles***, and the ***Columbian Archipelago***. We shall follow the political divisions of these islands in our description.

Table of Comparative Areas.

	Square Miles.
Cuba (with Pinos)	43,380
Hayti	29,400
Jamaica	5,520
Porto Rico	3,865
Greater Antilles	82,165
Lesser Antilles	11,280
Land area of the Archipelago	93,445

Tabular View of the West India Islands.

	Area, Sq. M.	Whites.	Free Blacks.	Slaves.	Total Pop.
British Islands.					
Anegada	50	. .	. .	none.	. .
Anguila	90	365	2,715	"	3,080
Antigua	108	1,980	33,432	"	35,412
Bahamas	4,440	4,657	13,916	"	18,573
Barbadoes	164	14,959	87,953	"	102,912
Barbuda	72	. .	. .	"	. .
Bermudas	20	4,264	4,456	"	8,720
Bieque, or Crab	40	. .	. .	"	. .
Cayman	60	. .	. .	"	. .
St. Christopher or Kitts	68	1,612	23,660	"	25,272
Culebra, or Passage	12	. .	. .	"	. .
Dominica	275	840	17,990	"	18,830
Grenada	120	801	27,322	"	28,123
Grenadines	30				
Jamaica	5,520	36,000	312,844	"	348,844
St. Lucia	275	881	17,267	"	18,148
Montserrat	47	330	7,339	"	7,669
Nevis	20	700	10,722	"	11,422
Roatan	28	. .	. .	"	. .
Tobago	120	280	14,621	"	14,901
Tortola	20	477	6,488	"	6,965
Trinidad	1,970	4,201	31,083	"	45,284
St. Vincent	121	1,301	25,821	"	27,122
Virgin Gorda	15	. .	. .	"	. .
Spanish Islands.					
Cuba	43,380	311,051	106,494	286,942	704,487
Porto Rico	3,865	162,311	127,287	34,240	323,838
French Islands.					
Desirade	450	11,000	11,324	97,330	119,654
Guadeloupe					
Mariegalante	90				
Saintes	12				
Martinique	290	9,410	18,832	81,753	109,995
St. Martin, Northern part	15	. .	. .	. .	. .
Dutch Islands.					
Curaçoa	375	. .	. .	7,000	12,000
St. Eustatius	10	(including	Saba)	12,000	18,000
St. Martin's, Southern part	10	. .	.	4,000	6,000
Saba	20	. .	. .	. .	.
Danish Islands.					
Ste. Croix	80	2,500	1,200	30,300	34,000
St. John	70	150	250	2,600	3,000
St. Thomas	50	800	700	5,500	7,000
Swedish Island.					
St. Bartholomew	25	. .	. .	6,000	15,000
Hayti	29,400	. .	600,000	none.	600,000

2. *Climate*, &c. Most of the Antilles are situated between the tropics, and there is not much difference in their climate ; accurate observations made in any one of them may be applied, with little variation, to them all. The spring begins about the month of May ; the savannas then change their russet hue, and the trees are adorned with a verdant foliage. The periodical rains from the south may at this time be expected ; they fall generally about noon, and occasion a rapid and luxuriant vegetation. The thermometer varies considerably ; it falls sometimes 6 or 8 degrees after the diurnal rains ; but its medium height may be stated at 78° of Fahrenheit. After these showers have continued for a short period, the tropical summer appears in all its splendor. Clouds are seldom seen in the sky ; the heat of the sun is only rendered supportable by the sea breeze, which blows regularly from the southeast during the greater part of the day. The nights are calm and serene, the moon shines more brightly than in Europe, and emits a light that enables one to read the smallest print ; its absence is in some degree compensated by the planets, and above all by the luminous effulgence of the galaxy. From the middle of August to the end of September, the thermometer rises frequently above 90° ; the refreshing sea breeze is then interrupted, and frequent calms announce the approach of the great periodical rains. Fiery clouds are seen in the atmosphere, and the mountains appear less distant to the spectator than at other seasons of the year. The rain falls in torrents about the beginning of October, the rivers overflow their banks, and a great portion of the low grounds is submerged. The rain that fell in Barbadoes, in the year 1754, is said to have exceeded 87 inches. The moisture of the atmosphere is so great, that iron, and other metals easily oxidated, are covered with rust. This humidity continues under a burning sun. The inhabitants (say some writers) live in a vapor bath ; it may be proved, without using this simile, that a residence in the lower part of the country at this season, is disagreeable, unwholesome, and dangerous to a European.

In order to make our readers better acquainted with this country, we shall attempt to describe a morning in the Antilles. For this purpose, let us watch the moment when the sun, appearing through a cloudless and serene atmosphere, illumines with his rays the summits of the mountains, and gilds the leaves of the plantain and orange trees. The plants are spread over with gossamer of fine and transparent silk, or gemmed with dewdrops, and the vivid hues of industrious insects, reflecting unnumbered tints from the rays of the sun. The aspect of the richly cultivated valleys is different, but not less pleasing ; the whole of nature teems with the most varied productions. It often happens, after the sun has dissipated the mist above the crystal expanse of the ocean, that the scene is changed by an optical illusion. The spectator observes sometimes a sand-bank rising out of the deep, or distant canoes in the red clouds, floating in an aerial sea, while their shadows at the same time are accurately delineated below them. This phenomenon, to which the French have given the name of *mirage*, is not uncommon in equatorial climates. Europeans may admire the views in this archipelago during the cool temperature of the morning ; the lofty mountains are adorned with thick foliage ; the hills, from their summits to the very borders of the sea, are fringed with plants of never-fading verdure ; the mills and sugar-works near them are obscured by their branches or buried in their shade. The appearance of the valleys is remarkable ; to form even an imperfect idea of it, we must group together the palm tree, the cocoa-nut, and mountain cabbage, with the tamarind, the orange, and waving plumes of the bamboo cane. On these plains we may observe the bushy oleander, all the varieties of the Jerusalem thorn and African rose, the bright scarlet of the cordium, bowers of jessamine and Grenadilla vines, and the silver and silky leaves of the portlandia. Fields of sugar-cane, the houses of the planters, the huts of the negroes, and the distant coast lined with ships, add to the beauty of a West Indian landscape. At sunrise, when no breeze ripples the surface of the ocean, it is frequently so transparent, that one can perceive, as if there were no intervening medium, the channel of the water, and observe the shell-fish scattered on the rocks, and the medusas reposing on the sand.

Hurricanes often do great damage in some of the islands, but they are rare in Cuba, and are never felt in Tobago and Trinidad. These terrible movements of the atmosphere, during the continuance of which the wind blows with fury from all the points of the compass, and which are often attended with hail and lightning, most frequently occur in August, but also happen in July, September, and October. A hurricane is generally preceded by an awful stillness of the elements, the air becomes close and heavy, the sun is red, and the stars at night seem unusually large. Frequent changes take place in the thermometer, which rises sometimes from 80 to 90 degrees. Darkness extends over the earth ; the higher regions gleam with lightning. The impending storm is first observed on the sea ; foaming mountains rise suddenly from its clear and motionless surface. The wind rages with unrestrained fury; its noise may be compared to the distant thunder. The rain descends in torrents, shrubs and lofty trees are borne down by the mountain stream, the rivers overflow their banks, and submerge the plains. Terror and consternation seem to pervade the whole of animated nature; land-birds are driven into the ocean, and those whose element is the sea, seek for refuge in the woods. The frighted beasts of the field herd together, or roam in vain for a place of shelter. It is not a contest of two opposite winds, or a roaring ocean, that shakes the earth; all the elements are thrown into confusion; the equilibrium of the atmosphere seems as if it were destroyed, and nature appears to hasten to her ancient chaos. Scenes of desolation have been disclosed in these islands by the morning sun; uprooted trees, branches shivered from their trunks, the ruins of houses, have been strewed over the land. The planter is sometimes unable to distinguish the place of his former possessions. Fertile valleys may be changed in a few hours into dreary wastes, covered with the carcasses of domestic animals, and the fowls of heaven.

Sugar-Cane.

Coffee Plant.

3. *Vegetable Productions.* The rich and varied productions of the West Indies, give the archipelago an important place in the commerce of the world. To its valuable native plants, art and industry have added others of not less value. The sugar-cane, yielding its threefold tribute of sugar, molasses, and rum; the coffee plant, whose delicious berry affords a grateful drink to millions; the allspice or pimento, combining the flavor and properties of several oriental spices; the nutritive banana and plantain, which, on the same space of ground, yield an amount of nourishing substance in the ratio of 133 to 1, as compared with wheat, and 44 to 1, as compared with the potato; the pine-apple, the luscious fruit of the anana; the useful yam, sweet potato (batatas), maize, and cassava or manioc, with cacao, tobacco, cotton, various dye-woods and stuffs (fustic, logwood, indigo, cochineal), and medicinal plants (liquorice-root, arrow-root, ginger, jalap, ipecacuanha, &c.); the mahogany and lignumvitæ are included in the list of its vegetable productions. To this catalogue must be added the bread-fruit, cocoanut, mango, papaw, guava, orange, lemon, tamarind, fig, cashew-nut, mammee, grenadilla, vanilla, pandanus, &c.

4. *Inhabitants*, &c. The white inhabitants of the West Indies are creoles, Spanish, English, French, Germans, &c. The mixed races are numerous, and the negroes most numerous of all. The Indians are extinct, except a mixed race of Carribees, blended with negroes, in the eastern part of St. Vincent. The general classes are those of master and slave, though the population of the free blacks is increasing. The creoles are generally taller than the Europeans, but less robust. They are supple and graceful in their motions. The socket of the eye is in them considerably deeper than in the natives of Europe. The ladies are pale and languid, but distinguished for large, brilliant, and expressive eyes. The dress is light and loose, and adapted rather to the climate than to European fashions. Several languages are in use in the West Indies, as the English, the French, the Spanish, with other European tongues, and the creole, a jargon used in Hayti, composed of French and several African dialects. The buildings are generally slight and low. They are devised rather for comfort and coolness than for ostentation. The food is various, but a great part of it is vegetable. The bread-fruit, banana, plantain, sweet potato, &c., are common. Salt fish is dealt out for the regular rations of the slaves. The plantain is a general article of food, and it is good green or ripe, boiled, roasted, fried, or baked. The slaves are well supplied with food, and few adults in Cuba, and some other islands, are without a garden, swine, &c. The diseases most fatal to European constitutions are putrid

fevers, which often rage in the towns and shipping. The creoles give the tone to the West Indian character. Hospitality, generosity, and pride, are qualities of the planters. They are frank and very social. There is but one class among them, for all are equals. The poorest white feels himself on a level with his employer, and salutes him by grasping his hands. The creoles are quick and intelligent, but indolent. They have a great warmth of imagination and flow of spirits. Their faults are not those of meanness, but of the unfortunate system under which they live. In Cuba the planters carry hospitality to its utmost extent. The monteros in this island are a hardy and honest race of yeomanry, often engaged as managers, carters, &c. They are very numerous. The negroes form in the West Indies by far the most numerous class. The climate is well adapted to them, but they too generally pass a life of unremitted hardship and toil. They are often overtasked, and without a sufficient time for rest. In Cuba, Doctor Abbot supposes, that they are made to perform a third more than in Carolina. Here, however, manumission is much favored by law, and the authorities. A slave may buy his freedom, by paying his first cost, and if he pay but a part, his master must relinquish a proportionate part of his time. The Haytiens, who have achieved their independence, have much improved in their manners and comforts ; but generally the African race is in the West Indies much degraded and debased by hapless and intolerable servitude.

The population is diminishing ; the rate of decrease being about 8 per cent annually in Cuba, and 5 or 6 per cent in some of the English islands. Although therefore, 2,130,000 slaves were imported into the English islands between 1680 and 1786, the whole colored population, including the mixed breeds, does not at present exceed 763,000 souls ; from 1521 to 1825, 413,500 slaves had been introduced into Cuba, yet in 1827 the whole number of persons of color was less than 400,000. The United States present a very different state of things ; the 300,000 blacks brought into that country between 1620 and 1808, having increased to 2,328,642, in 1830.

The most common amusements of the whites are dancing and gaming. Cock-fighting is very common, and in Cuba there is no village without a *pit*, which the Rev. Dr. Abbot remarks, is a fit emblem of that which is *bottomless*. The means of education are limited. In Hayti there is a school in almost every village, and a college at Cape Haytien ; and in Cuba the means of instruction are improving ; but generally, these are so low, that many young men are sent to Europe for education. The religion is various in the different islands. In Cuba and Hayti it is generally Catholic. In Cuba the slaves are baptized, and for this the owner generally pays a certain sum to the ecclesiastic, for the year. In many islands the missionaries have had much success, especially among the slaves, though they have too often been opposed by the planters. Generally the creoles must be described as somewhat licentious, and little conversant with religious sentiments. The government of Cuba is that of a captain-general, appointed by the crown of Spain. The islanders, however, are much favored, from the fear, that the mother-country entertains, of a revolt. Hayti is a republic, in which the President is chosen by the Senate for life. The representatives are chosen once in 5 years by the people ; and the senators, who hold their offices 9 years, are chosen by the representatives. Jamaica has a Governor, a council of 12 members, and a House of Assembly, chosen by the freeholders. The governments of the other islands are various, but generally somewhat similar.

SPANISH ISLANDS.

1. CUBA. *Cuba* is situated opposite the entrance of the Gulf of Mexico, and stretches from S. E. to N. W., through a space of nearly 700 miles, but varies in breadth from about 70 to 130. It lies between 19° and 23 °N. lat., and 74° and 85° W. long., and has an area of about 56,000 square miles. Cuba has some resemblance in shape to an alligator, and a ridge of mountains runs through its whole length, dividing it into 2 parts. From this ridge, numerous rivers descend, and more than 150 are said to pour their crystal waters over its plains. At the foot of the mountains, the country opens into extensive meadows, that afford pasturage for numerous herds of cattle both tame and wild, many thousands of which are annually killed for their hides. The soil is extremely fertile, particularly in the valleys, and produces the sugar-cane, coffee, cotton, tobacco, and all the fruits and aromatic plants of the tropics. The climate in the interior is healthy. In the seaports, in summer, it is unhealthy, especially for strangers ; and as the rays of the sun fall almost perpendicularly, the temperature is hot. In the mountainous parts the

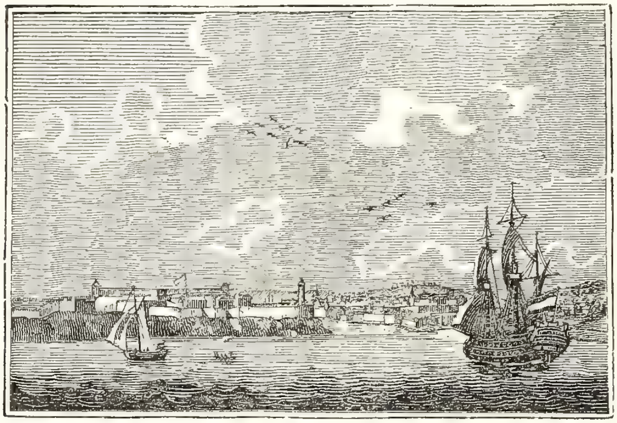
temperature is more moderate, and in a place exposed to the north, water has been found frozen. The most productive mines of Cuba are those of copper. An iron mine of excellent quality has been explored near Havana, and beds of loadstone are found on the island. The rock crystals of Cuba are very brilliant, and salt is produced in abundance. Mineral waters have also been discovered in several places.

During the last 50 years a concurrence of circumstances has rendered Cuba the richest of the European colonies in any part of the globe ; a more liberal and protecting policy has been adopted by the mother country ; the ports of the island have been thrown open ; strangers and emigrants have been encouraged to settle there ; and amid the political agitations of Spain, the expulsion of the Spanish and French residents from Hispaniola, the cession of Louisiana and Florida to a foreign power, and the disasters of those who in the continental States of America adhered to the old country, Cuba has become a place of general refuge. In 1778, the revenue of the island amounted to 885,358 dollars ; in 1794, it was 1,136,918 dollars, and in 1830 no less than 8,972,548 dollars, a sum superior to the revenue of most of the secondary kingdoms of Europe, and sufficient not only to provide for its own wants, but to afford important aid to the mother country in the contest with her revolted colonies. In 1775 the population consisted of only 172,620 souls ; in 1832 it amounted to 830,000, of which nearly three fifths were free. In 1800, there were only 80 coffee plantations on the island ; in 1827, there were 2,067. Between 1760 and 1767 the exports of sugar amounted to 5,570,000 lbs. annually ; in 1832, they are estimated to have exceeded 250,000,000 lbs. A railroad has been constructed by the government, from Havana to Guines, a distance of 45 miles, and an extension of the work, from Guines across the chain of highlands, which extends through the island, to the southern coast, is now in progress. The portion to Guines was completed in 3 years, by engineers from the United States.

The following statement of the divisions and towns, with their respective populations, affords a general view of the island.

Divisions.	Towns.
Western Department.	Havana, 112,000. Matanzas, 14,000. Jaruco, 1,000. Guanabacoa, 5,000. Batavano, 300. Guines, 3,000. Santiago, 200. Mariel, 800.
Central Department.	Puerto Principe, 49,000. Santa Clara, 9,000. Nuevitas, 800. Santi Espiritus, 11,000. Trinidad, 13,000. Remedios, 5,000. Xagua, 800.
Eastern Department.	Santiago de Cuba, 27,000. Baracoa, 3,000. Gibara, 300. Higuany, 2,000. Holguin, 8,000. Bayamo or San Salvador, 7,000. Manzanillo, 3,000.

Havana, the capital and principal city of the island, situated on the northern coast, is one of the largest and richest cities in America, and has one of the best harbors in the world. The public buildings are less remarkable for beauty than for solidity, and the streets are in general narrow, dirty, and unpaved. There are, however, fine public walks, and the palace of the governor, the theatre, and some of the private houses, are handsome edifices. The entrance of the port is defended by 2 forts, and there are several other military works, which render Havana one of the strongest places in the world. Its commerce is extensive ; population, 112,023, of which 22,830 are slaves. Here are 11 churches, 1 of which is a cathedral, 11 convents, 3 hospitals, a university, &c. Owing to the heat of the climate, and the filth of the town, strangers are exposed to the fatal attacks of the yellow fever or black vomit, particularly in August and September. The environs are healthy. Sixty miles east of Havana is *Matanzas*, a flourishing place, with a fine harbor, a healthy situation, and an extensive and increasing commerce. Population, 14,340.



Havana.

Puerto Principe, lying in the interior, a place of 49,000 inhabitants, is remarkable only for ts narrow, winding, and filthy streets. On the southern coast is *Santiago*, a flourishing place with an extensive commerce ; its harbor is excellent, but the town is unhealthy. Population, 26,738. *Trinidad* is a well-built place, on the southern coast, with 13,000 inhabitants. *Bayamo* or *St. Salvador*, about 20 miles from the coast, is a thriving town, with 7,486 inhabitants.

Population at different Periods.

	Whites.	Free Blacks.	Free Mulattoes.	Total Free.	Slaves.	Total.
1774 - -	96,440	11,640	19,207	97,287	44,333	171,620
1792 - -	133,559	20,266	33,886	187 711	84,590	272,301
1817 - -	239,830	54,376	59,682	353,888	199,145	553,033
1827 - -	311,051	48,980	57,514	417,545	286,942	704,487

The annual value of the imports amounts to 20,000,000 dollars , of exports to 18,000,000 dollars. The principal quantity of the articles of export for several years was as below :

	Sugar. Arrobas.	Coffee. Arrobas.	Molasses. Hhds.	Rum. Pipes.	Wax. Arrobas.	Leaf Tobacco. Arrobas.	Cigars. Arrobas.
1827 -	6,237,390	2,001,583	74,083	2,457	22,403	79.106	167,361
1830 -	7,868,881	1,798,598	66,219	5,595	38,741	160,358	407,152
1833 -	7,624,553	2,566,359	95,768	3,227	41,536	92,475	617,713

Cuba was discovered by Columbus in his first voyage, who did not ascertain whether it was an island or part of the continent ; nor was this question determined till 1508, when it was circumnavigated by Ocampo. It was conquered by the Spaniards under Velasquez, in 1511.

2. Porto Rico. This island is 120 miles in length and 40 in breadth, and contains 4,500 square miles. The surface is greatly diversified, rising in some places to mountains, and in others sinking into valleys, watered by beautiful streams, which descend from the higher parts. The climate differs little from that of the adjacent islands ; and the productions are similar. The woods are said to contain a breed of wild dogs, which the Spaniards imported to hunt the defenceless natives. The northern parts are supposed to contain gold and silver, but no mines are worked.

St. Juan, a town of 30,000 inhabitants, with a convenient harbor on the north coast, is the capital. The other principal towns are *Aguadilla*, *Guayama*, *Faxardo*, and *Ponce*.

Porto Rico has 350,000 inhabitants, of whom 32,000 are slaves. This island was discovered by Columbus in 1493, and conquered by the Spaniards under Ponce de Leon, about 1509. It was taken by the English under the Earl of Cumberland, towards the close of the 17th century, but they found the climate so unhealthy, that they soon abandoned the conquest. It is now, with Cuba, under the government of a Captain General, who resides at Havana, and is in a very flourishing condition.

REPUBLIC OF HAYTI.

Hayti, *Hispaniola*, or *St. Domingo*, is the second in size of the West India Islands.* Its extreme length is about 400 miles, and its utmost breadth 150, and it has an area of about 30,000 square miles. The mountains chiefly form 2 chains, running from east to west, with several collateral branches, that pour their accumulated streams upon the plains. Most of the principal rivers originate in the mountains of Cibao, and pursue different directions towards the sea. One of the largest of these is the *Neybe*, which enters the Carribean sea. The *Ozama* bathes the western part of Hayti. The *Artibonite* is a still larger stream, and flows from the centre of the island to the sea on the west. Alligators abound in most of the larger rivers, and turtles are very common in their estuaries. Besides the tropical fruits and vegetables, which this region affords, St. Domingo abounds with many valuable kinds of wood. Mahogany grows to a great size, and is of an excellent quality. A species of oak affords planks 60 or 70 feet long. The pine is also abundant on the mountains. Few native quadrupeds are found in St. Domingo, and all the domestic kinds were introduced from Europe. Birds are numerous. Noxious reptiles and insects infest the island.

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* Columbus named the island Hispaniola, or Little Spain, but learned that the native name was Hayti, which, after a lapse of 300 years, has been revived since the revolution. The European powers, however, applied the name of the chief city to the whole of the island, and universally called it St Domingo

The annual value of the exports is about 4,000,000 dollars, the principal article being coffee, with mahogany, campeachy wood, cotton, tobacco, hides, cacao, tortoise-shell, wax, ginger, &c. In 1789, there were exported 141,000,000 pounds of sugar; at present there is scarcely any made in the island, and it is even smuggled in, in small quantities; the export of coffee at the former date was 76,835,219 pounds, of cotton 7,004,274 pounds, and of indigo 758,628 pounds; at present a little more than one half that quantity of coffee, and about one tenth of the quantity of cotton are exported, and no indigo is sent out of the island.

Port au Prince is the seat of government. It has a good harbor, and is a place of considerable trade. The houses are small, principally built of wood, and are mostly one story high, with piazzas in front. The situation of the town is somewhat unhealthy. Population, 20,000.

St. Domingo is the oldest city built by Europeans in the New World. It was founded in 1498, by Bartholomew Columbus, and its site is near the mouth of the Ozama, on the south coast. The city is enclosed by a wall, and some of the houses are of stone, and others of a kind of earth, mixed with lime, which becomes hard and durable. The public buildings resemble those of other Spanish towns. Population, 12,000. *Cape Haytien* is a large town with a safe and convenient harbor, and a population of 15,000. Its former name was *Cape François*. The other principal towns are the *Mole*, *Jacmel*, *Aux Cayes*, *Leogane*, and *St. Mark's*.

This island formerly consisted of 2 colonies, a French one, which occupied the western part of the island, and a Spanish one, which occupied the eastern part. In 1792, the slaves of the French colony who constituted eleven twelfths of the population, revolted against their masters, and some years afterwards declared themselves an independent nation. In 1804, Dessalines, one of the black chiefs was appointed governor for life, and he soon after took the title of Emperor, under the name of James the First. He was assassinated in 1806, and succeeded by Christophe, who took the name and title of King Henry the First. The seat of his government was at Cape Haytien, to which he gave the name of Cape Henry. In the mean time the people of the southern part of the island, who refused to submit to this government, formed a little republic, and made Petion, a colored chief, President. He was elected twice, for periods of 4 years, and afterwards for life. He died in 1818, and was succeeded by Boyer, as President for life. Two years afterwards, the subjects of Christophe, disgusted with his tyranny, revolted, and being deserted by his troops, he shot himself. Boyer immedately marched with an army to the north, and after a feeble resistance from a portion of the royalist chiefs, was received as a deliverer by the people, and these two States were united under one republic. In 1822, Boyer took advantage of another event to unite the Spanish part of the island to the republic. The people, who were principally colored, revolted against the Spanish authorities, and Boyer, hastily marching to the city of St. Domingo with 12,000 men, was received without opposition. The Spanish soldiers were sent away from the island, the republican flag was hoisted, and the slaves were emancipated. From that period, the Republic of Hayti has been co-extensive with the island of St. Domingo.

The government of Hayti is professedly republican, but practically a military monarchy. The President holds the place for life, and has the right of naming his successor with the consent of the Senate. He has also the sole right of proposing laws, the action of the legislature being confined to subjects laid before them by the President. The Senate consists of 24 members, appointed for life by the House of Representatives, on the nomination of the President. The representatives are chosen for the term of 6 years. The revenue of the State is about 1,500,000 dollars; the expenditure is considerably more, and the treasury is burdened with a heavy debt. The army, badly armed and disciplined, comprises 45,000 men, and there is a national guard. About four fifths of the population are comprised in the part of the island which belonged to the French, and speak a patois of mixed French and African languages, without much resemblance to the dialect of Paris. The remainder employ a similarly corrupted Spanish. The people are in general ignorant, superstitious, and lazy, but good-natured and honest. The Roman Catholic is the established religion; it is, however, mixed with notions of African origin, and the priests are few.

BRITISH ISLANDS.

The British are now distinguished from the other islands, belonging to European powers, by the absence of slavery. In 1833, Parliament passed an act prospectively abolishing slavery in all the British colonies, and appropriating 100,000,000 dollars for the payment of an indemnity to their owners. The whole number, now completely free, was found to be 780,000, and of these about 590,000 were in the West Indies. The annual charge of these islands to Great Britain is 3,000,000 dollars. The following table shows the annual value of the produce and exports of these islands.

	Sugar. cwt.	Rum. galls.	Coffee. lbs.	Exports.
Jamaica	1,256,253	2,924,067	18,268,883	£3,346,359
Bahama			45,579	67,736
St. Vincent	213,017	93,397	197	331,467
Barbadoes	394,527	2,170	77,868	648,446
Grenada	194,542	247,049	10,332	315,611
Tobago	79,018	272,787		139,668
Antigua	257,177	71,445	225	446,746
Montserrat	26,631	20,480		7,212
St. Kitts	105,355	79,080	185	77,432
Nevis	59,748	23,286		12,169
Virgin Islands	21,926	3,478		
Dominica	54,876	27,764	893,492	135,396
St. Lucia	63,306	4,707	96,004	33,034
Bermudas				33,909

The islands are governed by an executive appointed by the crown, styled a Governor, and a council also appointed by the crown. With the exception of Trinidad and St. Lucia, there are also legislatures styled Assemblies, chosen by the inhabitants. The population is about 760,000, of whom 70,000 are whites.

1. JAMAICA. *Jamaica* is, without doubt, the most important and valuable of the British West India Islands. It is of an oval form, 150 miles in extreme length, and 60 in breadth; and its area exceeds 5,500 square miles. A lofty range of mountains, called the Blue Mountains, runs through the whole island from east to west, dividing it into 2 parts, and rising in some places to 7,431 feet above the level of the sea. On the north and south sides of these mountains, the aspect of the country is extremely different. On the north side of the island, the land rises from the shore into hills, which are of gentle acclivity, and commonly separated from each other by spacious vales, abounding in clear and delicious streams. On the southern side of the island, the scenery is of a different nature, consisting of the stupendous ridges of the Blue Mountains, of abrupt precipices and inaccessible cliffs, approaching the shore. The island is well watered. There are about 100 rivers, which take their rise in the mountains, and run, commonly with great rapidity, to the sea, on both sides of the island. None of them are navigable, except for boats. Black River is the deepest, and has the greatest current. The climate of Jamaica, on the plains, is hot; but the cool sea-breezes, which set in every morning at 10 o'clock, render the heat more tolerable; and upon the high grounds, the air is temperate, pure, and cooling. The year, as in all tropical countries, may be divided between the wet and dry seasons.

The soil of Jamaica is in some places deep and fertile; but, on the whole, it is an unfruitful country, compared with those which have been generally regarded as fertile. There are springs, both sulphureous and chalybeate, in different parts of the island. Sugar, indigo, cotton, and coffee, are the most important natural productions. Maize and rice are also cultivated. Fruits abound in great perfection and variety. The indigenous quadrupeds of the island were the agouti, the pecary, the armadillo, the opossum, the raccoon, the muskrat, the alco, and the monkey. The woods and marshes abound in wild fowl, some of exquisite flavor. Parrots are still found in the groves; but the flamingo is nowhere to be seen. Jamaica is situated near the limits of the great volcanic region of South America, and it is, in consequence, liable to earthquakes. A succession of hurricanes completely desolated the island, towards the close of the 18th century.

Jamaica is divided into 3 counties, Middlesex, Surry, and Cornwall. It contains 6 towns, and more than 20 villages. The capital of the island is *Spanish Town*, or *St. Jago de la Vega*, situated on the banks of the river Cobre, about 6 miles from the south coast. It is the residence of the governor, and the seat of the national legislature, and contains about 5,000 inhabitants.

Kingston is the principal town in the island, with regard to commerce and population. It stands at the head of an inlet of the sea, in the southeast part; and the bay admits the largest vessels to anchor safely in all weathers. The streets of the city are straight and spacious, but rendered hot and disagreeable by being covered with a deep, loose sand. Kingston contains many handsome houses, and has 2 churches, a free school, a public hospital, and a theatre. The city is well supplied with all kinds of provisions, particularly the finest fruits and vegetables Population, 33,000.

Port Royal stands a few miles southwest of Kingston. It contained 2,000 handsome houses, when, in 1692, a tremendous earthquake buried the greatest part of it eight fathoms under water. Its advantages as a commercial port caused it to be rebuilt; but ten years afterwards a fire reduced most of it to ashes. A second time it rose from its ruins, and in 1772, a dreadful hurricane reduced it once more to a heap of rubbish. It now consists only of three streets, with about 15,000 inhabitants. Besides these towns, there are three other ports towards the western extremity of the island, which participate in its commerce. *Savanna-la-mar* stands on the south coast, and *Montego Bay* and *Falmouth* are on the north.

The population of Jamaica is 348,000, of whom 36,000 are of European origin. It has a Governor, and a Council of 12 members, appointed by the king, and a House of Assembly of 43 members, elected by the freeholders. The principal exports are sugar, rum, and coffee.

Jamaica was discovered by Columbus, during his second voyage, in 1494. In 1509, a Spanish colony was established; but, when the fleet which Cromwell had sent to seize Hispaniola, in 1655, were unable to effect their object, they found but little difficulty in taking Jamaica. It was soon afterwards colonized by 3,000 soldiers disbanded from the parliamentary army, who were followed by about 1,500 royalists. When it was captured by the English, many of the slaves belonging to the Spanish settlers fled to the mountains, where they long lived in a kind of savage independence, and frequently annoyed the British colonists. They were called Maroons; the last of their incursions was in 1795, when they were obliged to surrender, and about 600 of them were sent to Nova Scotia, and had lands assigned them. Since that period, the internal peace of the island has been preserved, with the exception of a few speedily-subdued insurrections of the slaves.

2. TRINIDAD. *Trinidad* is about 80 miles from E. to W., and 50 from N. to S. It is unhealthy but fruitful, producing cotton, sugar, fine tobacco, indigo, ginger, various fruits, and maize. The asphaltum lake in this island is considered a remarkable curiosity. It is about 3 miles in circumference. The substance which is here found has the consistence and aspect of pit-coal; it breaks into glossy fragments of a cellular appearance; a gentle heat renders it ductile, and, mixed with grease or common pitch, it is used for smearing the bottoms of ships. Trinidad has several good harbors, particularly on the west coast. *Port Spain* is the chief place of the island. Population, 10,000. This island was taken by Sir Walter Raleigh, in 1595, and by the French in 1676; captured from the Spaniards in 1797, and ceded to England by the treaty of Amiens.

3. TOBAGO. *Tobago*, situated a few leagues north of Trinidad, is about 24 miles long and 12 broad. The eastern part of the island is elevated, and the western consists of beautiful savannas. The soil is rich, and the figs and grapes are of the best quality. *Scarborough* is the chief town.

4. GRENADA. *Grenada* is about 80 miles W. of Tobago, and is 24 miles long, and 12 at its greatest breadth. The face of the country is rugged and mountainous; and there are numerous springs and rivulets. *St. George* is the capital, and has a commodious harbor, with considerable trade, and 8,000 inhabitants.

5. BARBADOES. This is the most eastern of the British West India Islands. It is 21 miles in length, and 14 in breadth. The climate is very hot, but the air is pure, and moderated by the constant trade winds, which render it more salubrious than that of any of these sultry islands. The soil in the low lands is black, and towards the sea sandy. The exports are sugar, rum, ginger, cotton, aloes, &c. Barbadoes contains 4 towns, viz. *Bridgetown*, the capital, *Speight's Town*, *Austin's Town*, and *Jamestown*. Barbadoes is supposed to have been discovered by the Portuguese, but was settled by the English, in 1605. It has suffered much by tempests, fires, and the plague. In 1790, a hurricane occasioned great devastation; and in 1831, another still more violent, destroyed nearly 3,000 lives.

6. ST. VINCENT. *St. Vincent*, about 70 miles west of Barbadoes, is a rugged and elevated island, 17 or 18 miles long, and 10 broad. It is extremely fertile, and well adapted to the raising of sugar and indigo. It was obtained by the British at the peace of 1763, and though

afterwards taken by the French, it was again confirmed to the British, in 1783. ***Kingston*** is the capital. This island was nearly desolated, in 1812, by the eruption of the Souffrier Mountain, which had remained quiet for a century.

7. St. Lucia. *St. Lucia*, a few miles north of St. Vincent, is 25 miles long, and 12 broad. It consists of plains well watered with rivulets, and hills abounding in timber, and has several good bays and commodious harbors. There are two high mountains, by which this island may be known at a considerable distance. St. Lucia was alloted to France in 1763. In 1803 it was taken by the English, and confirmed to them by the treaty of Paris, in 1814.

8. Dominica. *Dominica*, situated between Guadaloupe and Martinique, is 31 miles long, and 16 broad. It is an assemblage of lofty, clustering mountains, of which several are volcanic. The forests abound with rose-wood and other ornamental trees. The coffee produced here is of a choice quality. ***Roseau*** is the present capital of the island.

9. Montserrat. *Montserrat* is a small, oval-shaped island, containing about 30,000 acres of land. The climate, soil, vegetable and animal productions, and commerce, are similar to those of the other islands of this group.

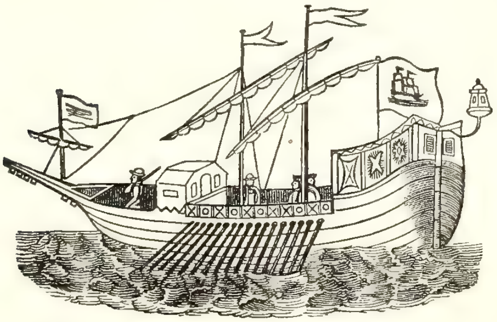
10. Antigua. *Antigua*, a few miles northeast of Montserrat, is 21 miles in length, and nearly the same in breadth. The soil is chiefly a black mould, but in the dry season, there is neither spring nor rivulet in the island. The inhabitants, therefore, carefully preserve the rain-water. The chief staples are sugar, cotton, wool, and tobacco. The principal town is ***St. John's***, which stands on the northwest coast, and rises on a steep acclivity from the sea. ***Falmouth*** is a port on the south side of the island.

11. Nevis. *Nevis* consists merely of a conical mountain, more than 20 miles in circumference, rising abruptly from the sea. *Charlestown* is the capital.

12. St. Kitts'. *St. Christopher's* or *St. Kitts'*, separated by a narrow channel from Nevis, is little more than 15 miles in length, and 4 in breadth. The interior of the country is a rugged mass of precipices and barren mountains, the loftiest point of which is Mount Misery, which is an extinct volcano, and rises to the height of about 3,710 feet. The soil upon the plains is extremely productive. This island, with Montserrat, Nevis, Antigua, and the Virgin Isles, form one government, the governor generally residing at Antigua. The chief town is ***Basse Terre***, on the south coast.

13. Virgin Islands. *Tortola* is the principal of the group called the Virgin Islands belonging to Great Britain. It is about 18 miles long, and 6 or 7 broad, and produces excellent sugar, cotton, and rum. The Virgin Islands are the most barren in the whole West Indian archipelago. Besides those already described, there are some other small islands, and several bays. Two of the principal of these are *Barbuda* and *Anguilla*. The latter island is noted for its wild cattle, which have multiplied greatly in the woods of the interior.

14. Bahamas. The *Bahama* or *Lucayos Islands* lie in a line stretching from S. E. to N. W. about 700 miles, and extending from 21° to 28° N. latitude, and from 71° to 81° W. longitude.* There are 2 extensive sandbanks in these seas ; the Great and Little Bahama Banks. The Keys or Cayos are rocks or sand islands, scattered in great profusion over this part of the ocean. Their number is computed at 700. The Bahamas in general are badly supplied with water, which, however, is found by digging to the level of the sea. A few places consist of a rich soil, but in most parts it is light and sandy. The principal products are cotton, salt, turtle, fruits, mahogany, and dye-woods. Turks' Islands are famous for their salt ponds, which annually yield more than 30,000 tons of salt for exportation. *New Providence* is the seat of government, and ab



Picture of one of the Vessels of Columbus.

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* The principal islands or groups, in passing from the southern to the northern extremity, are the following, &c.

1. Turks' Islands
2. Caicos
3. Heneagas
4. Mayaguana
5. Crooked Island Groupe
6. Long Island
7. Watlings
8. The Exumas
9. San Salvador
10. Eleuthera
11. Providence
12. Andros
13. Lucaya or Abaco
14. Bahama.

sorbs nearly all the trade of the group. *Nassau* is the chief town. *Guanahani* or *Cat Island*, called by Columbus *San Salvador*, is celebrated as the spot where Columbus first landed in the new world. The Bahamas were the haunts of pirates, buccaneers, and freebooters, till the conclusion of the American war, at which time they became the resort of many loyalists from Carolina and Georgia.

15. Bermudas. The *Bermudas*, or *Somers Islands*, form a cluster of small islands in the Atlantic Ocean, in number about 400, but for the most part so barren that they have neither inhabitants nor name. They are 200 leagues distant from Cape Hatteras in North Carolina, which is the nearest land to them. The largest of these islands are *St. George*, which is 4 or 5 miles long, and 2 broad. *St. David*, *Cooper*, *Ireland*, *Somerset*, *Long Island*, *Bird Island*, and *Nonesuch*. On the first there is a town containing about 300 houses, which is the metropolis. The group is so surrounded with rocks that it is difficult for any ship to enter the roads without an experienced pilot. The climate is salubrious and delightful; and the fields and trees are clad in perpetual green. The tempests and hurricanes are, however, sometimes tremendous. The numerous woods supply timber for ship-building, which, with navigation, is the principal employment of the inhabitants. These islands were first discovered by Juan Bermudez, a Spaniard, in 1522; in 1609, Sir George Somers, an Englishman, was wrecked here, and, after his shipwreck, formed the first settlement.

FRENCH POSSESSIONS.

1. Martinique. *Martinique* or *Martinico*, is about 50 miles long and 16 broad. It is very uneven, and intersected in all parts by hillocks. Three mountains rise above these smaller eminences. The highest bears the marks of a volcano. The principal productions are sugar, coffee, cassia, cotton, indigo, cocoa, ginger, &c. There are numerous bays and harbors. The chief towns are *Fort Royal*, the capital, with 9,000 inhabitants, and *St. Pierre*, with 18,000. In 1794 this island was taken by the British, and restored to France in 1802. It was again taken in 1809, and restored in 1815.

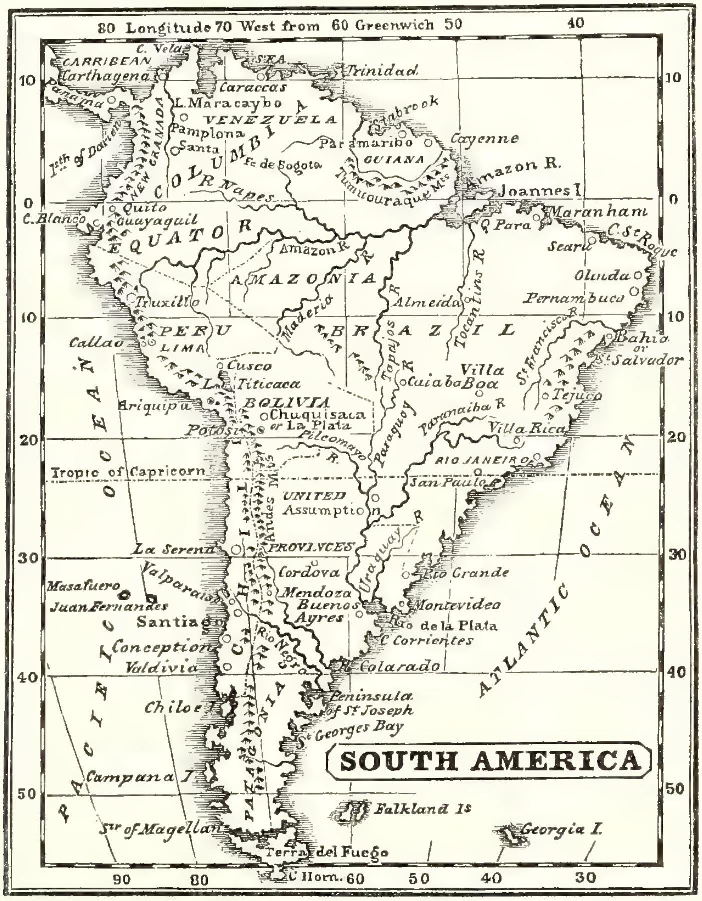
2. Guadeloupe. *Guadeloupe* is about 70 miles long, and 25 at its greatest breadth. It is divided into 2 parts by a channel from 30 to 80 yards broad. This channel runs north and south and communicates with the sea by a large bay at each end; that on the north is called Grand Cul de Sac, and that on the south Petit Cul de Sac. The part of the island east of the channel, is called Grande-Terre, and is about 120 miles in circumference. *Point à Petre*, in this division, is the principal town, with 15,000 inhabitants. The west part is subdivided by a ridge of mountains into *Capesterre* on the west, and *Basse-Terre* on the east. This part is also 120 miles in circuit. In many parts the soil is rich, and not inferior to that of Martinico. Its produce is sugar, coffee, rum, ginger, cocoa, logwood, &c. This island has been repeatedly taken by the British. It was restored to France in 1814. *Mariegalante*, a few leagues southeast of Guadeloupe, is 42 miles in circumference. There are several extraordinary caverns here, one of which is capable of holding several thousand persons. The climate is unhealthy. *Grandbourg* is the capital. Northeast of Guadeloupe is the small dependent isle of *Deseada*, which is principally a mountain, with a table-land on the summit. It produces considerable quantities of cotton.

Dutch Possessions. *St. Martin* is about 5 leagues in length and 4 in breadth, and is chiefly valuable for its salt pits. It belongs in part to France. *St. Eustatius* rises from the ocean like a pyramidal rock, a few leagues north of St. Christopher's. It is one of the finest and best cultivated islands of all the Carribees. Tobacco is its chief product. It was taken by the English in 1801, but restored to the Dutch in 1814. *Curaçoa* is situated 75 miles from the coast of Caracas, and is 30 miles long and 10 broad. It produces sugar and tobacco, but its soil is not fertile, and it is dependent on the rains for its supply of water. Curaçoa has several good harbors, and the inhabitants are chiefly engaged in trade with the Spanish possessions of South America.

Danish Islands. *St. John*, though a small island, is particularly noted for a fine harbor, which is capable of containing the whole British navy. It has also a number of salt ponds. *St. Thomas* is another little island lying near Porto Rico. The principal town is *St. Thomas*, which stands at the bottom of a deep bay, surrounded by lofty hills. *Santa Cruz*, a few leagues south of the 2 former islands, is about 24 miles long and 10 broad. Its climate is salubrious, but the water is unwholesome. The soil is fertile. Almost every spot of ground is in a high state of cultivation. The capital of this island is *Christianstadt*, which is one of the handsomest towns in the West Indies.

SWEDISH ISLANDS. The only island belonging to Sweden is *St. Bartholomew*, which is about 15 miles in circumference. It is very fertile, and produces sugar, cotton, tobacco, indigo, and cassava, but there is no water, except what is supplied by rains. The coast is surrounded with rocks, and is difficult of access, but there is a good harbor at *Gustavia*, which has 10,000 inhabitants. The island was ceded to Sweden by France, in 1785.

CHAPTER LVII. SOUTH AMERICA.



1. ***Boundaries and Extent.*** South America is bounded N. by the Caribbean Sea ; E. by the Atlantic Ocean ; S. by the Southern Ocean ; and W. by the Pacific Ocean. It extends from N. lat. 12° to S. lat. 56°, and from 35° to 82° W. long., having an area of 6,900,000 square miles.

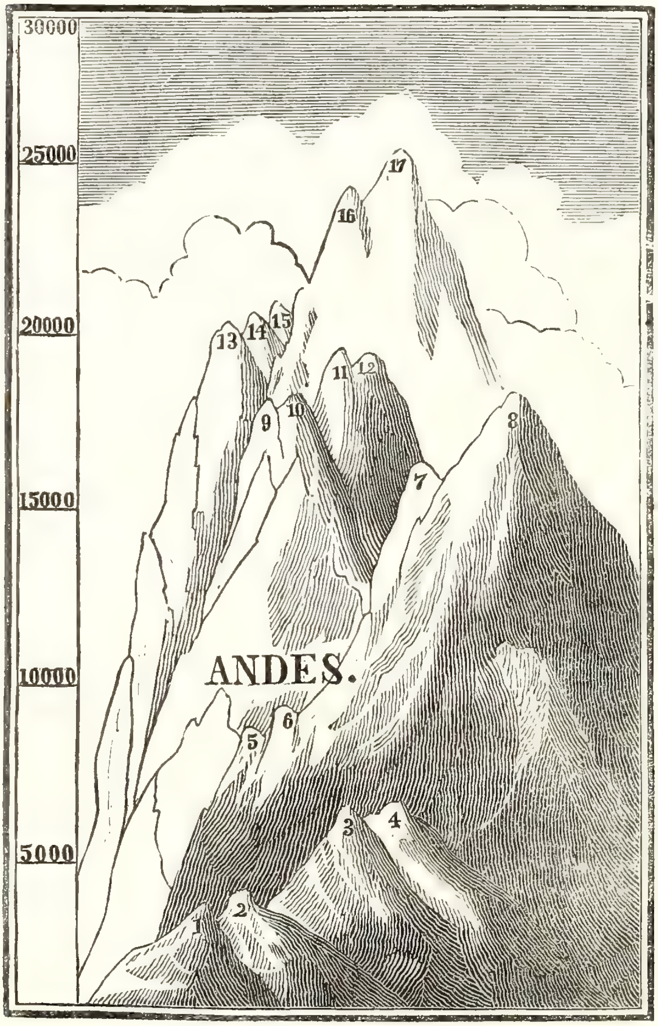
2. ***Mountains.*** Three systems of mountains pervade South America. Of these the ***Andes*** is the longest and loftiest, stretching through the whole length of the continent, from Cape Froward, the southern extremity of Patagonia, to the Gulf of Paria and the Isthmus of Panama, where it is connected with the great mountainous chain of North America. The Andes in some parts branch off into several chains, which are particularly described in the accounts of the sepa-

rate countries; and in Bolivia, they reach the enormous height of from 24,000 to 25,000 feet Their general course is along the shore of the Pacific Ocean, about 150 miles inland. The whole chain of the Andes is subject to violent earthquakes, and from Cotopaxi to the Southern Ocean, there are no less than 40 volcanoes in constant activity, some of which are the loftiest in the world. The other mountainous systems are the *Parima Mountains*, constituting several chains in Venezuela and Guiana, and the mountains of Brazil, also consisting of several chains of no great elevation.*

3. *Plains.* The great chains of the Andes divide South America, from lat. 9° N. to 52° S., into three immense plains, shut up on the west by a huge rampart of mountains, but open towards the Atlantic Ocean on the east. The most northern is the plain of the Orinoco, consisting of level tracts or llanos, covered with reedy plants and a few scattered palms. Further south is the great woody plain of the Amazon, to which succeeds the vast flat of the pampas, presenting a prodigious expanse, covered with coarse herbage, and thronged with countless herds of cattle.

4. *Rivers.* The great breadth of the eastern slope of the Andes, caused by their distance from the Atlantic shore, has its natural effect upon the size of the rivers. Gathering the accumulated waters of the extensive regions which they drain in their long courses, the *Orinoco*, the *Amazon*, and the *Plata*, seem to bring no tribute tide to the ocean; but, in the depth and

* *Comparative Elevation of Mountains in South America.*



	Feet.
Brazil.	
1. Tingua	3,600
2. Arasoiaba	4,160
3. Serrado Frio	6,000
4. Itacolumi	6,175
Venezuela.	
5. Mount Duida	8,000
6. Silla of Caraccas	8,750
15. Chimborazo	21,730
Republic of the Equator.	
11. Cotopaxi (volcanic)	19,000
7. Pichincha (do.)	16,000
13. Antisana (do.)	19,400
Peru.	
8. Arequipa	17,750
New Grenada.	
10. Quindiu	18,000
12. Sierra of Santa Martha	19,000
Chili.	
14. Chilian Range	20,000
Bolivia.	
16. Illimani	24,250
17. Sorata	25,400

breadth of their channels, and the volume of their waters, resemble inland seas No part of the world is more completely intersected by navigable streams, or more bountifully watered.

5. *Deserts.* The deserts of South America are less extensive than those of the eastern continent. The *Desert of Atacama*, between the Andes and the ocean, extends, with some interruptions, from Tarapaca, in Peru, to the vicinity of Copiapo, in Chili, embracing the narrow, maritime strip of Bolivia. It is about 450 miles in length, and is sandy and sterile ; in this region it never rains. There is a similar desert strip in the north of Peru, called the *Desert of Sechura*, about 75 miles in length. The *Desert of Pernambuco*, in the northeastern part of Brazil, is of greater extent, and consists of hillocks of moving sand, interspersed with some verdant oases.

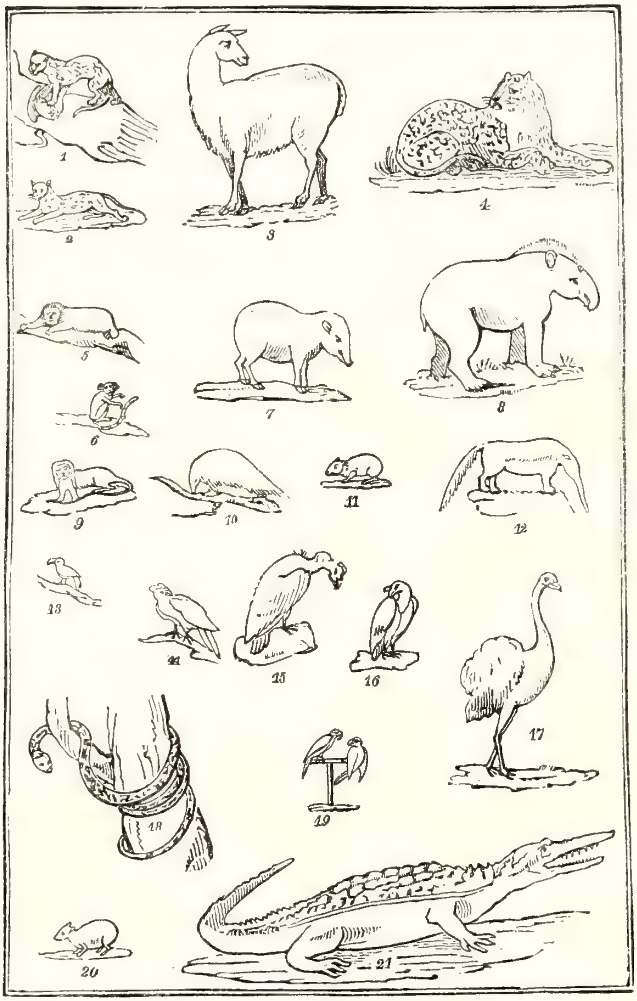
6. *Climate.* The three zones of temperature which originate in America from the enormous difference of level between the various regions, cannot by any means be compared with the zones which result from a difference of latitude. The agreeable and salutary vicissitudes of the seasons are wanting in those regions that are here distinguished by the denominations of *frigid*, *temperate*, *hot*, or *torrid*. In the frigid zone, it is not the intensity, but the continuance of the cold, the absence of all vivid heat, the constant humidity of a foggy atmosphere, that arrest the growth of the great vegetable productions, and, in man, perpetuate those diseases that arise from checked perspiration. The hot zone of these places does not experience excessive heat ; but it is a continuance of the heat, together with exhalations from a marshy soil, and the miasmata of an immense mass of vegetable putrefaction, added to the effects of an extreme humidity, that produces fevers of a more or less destructive nature, and spreads through the whole animal and vegetable world the agitation of an exuberant but deranged vital principle. The temperate zone, by possessing only a moderate and constant warmth, like that of a hothouse, excludes from its limits both the animals and vegetables that delight in the extremes of heat and cold, and produces its own peculiar plants, which can neither grow above its limits, nor descend below them. Its temperature, which does not brace the constitution of its constant inhabitants, acts like spring on the diseases of the hot region, and like summer on those of the frozen regions. Accordingly, a mere journey from the summit of the Andes to the level of the sea, or the reverse, proves an important medical agent, which is sufficient to produce the most astonishing changes in the human body. But living constantly in either one or the other of these zones, must enervate both the mind and the body, by its monotonous tranquillity. The summer, the spring, and the winter, are here seated on three distinct thrones, which they never quit, and are constantly surrounded by the attributes of their power.

7. *Minerals.* The mineral kingdom is rich in precious productions. In Brazil, diamonds are found of the largest size and greatest abundance, but they are inferior in quality to those of the East Indies. Gold is found in mines, and in the sands of many rivers ; the silver mines of Bolivia are among the most productive in the world, and platina has been found in various places. Tin, quicksilver, copper, and other useful metals are abundant, and salt is found in great plenty.

8. *Vegetable Productions.* The vegetable kingdom in South America offers the richest abundance and variety. The most remarkable trees are the palm, cocoa, banana, and cinchona. On the shores of the ocean the mangrove abounds. Upwards of 80 species of palms, equally distinguished for their beauty and size, and for their various uses, furnishing wine, oil, wax, flour, sugar, and salt, are found here. In the Brazilian forests, there are no less than 259 species of wood useful for carpentry or dyeing. Fourteen species of the cinchona, or Peruvian bark, are collected in different districts. The guaiacum, or lignumvitæ, exudes a valuable gum, which, as well as its wood, possesses important medicinal powers. The caoutchouc, or gum elastic, also called India rubber, is the milky juice of several plants found in Guiana, Brazil, and Buenos Ayres. It is obtained by making incisions through the bark, and is then spread, while in its viscous state, over a mould, and dried in a thick smoke. It is now so extensively used for making shoes and cloth, as to form an important article of commerce. Cacao, vanilla, maize, aracatscha, and potato, are also natives of South America, as are also the cassava, from which tapioca is prepared, and the capsicum, whose pods yield the Cayenne pepper. The cow-tree s found in Venezuela, and derives its name from the singular fact of its juice resembling milk When an incision is made in the trunk, the juice issues out in great abundance, and is drunk by the inhabitants. This vegetable milk does not coagulate nor curdle like animal milk, but in other respects has an astonishing resemblance to it.

In the region of the palms, the natives cultivate the banana, jatropha, maize, and cocoa.

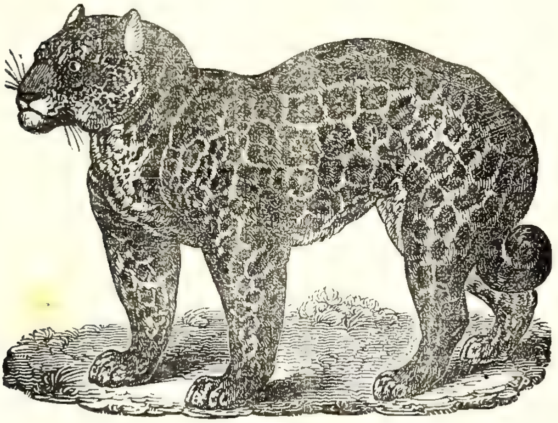
Europeans have introduced the sugar-cane and indigo-plant. After passing the level of 3,100 feet, all these plants become rare, and only prosper in particular situations; but in these, the sugar-cane grows even at the height of 7,500 feet. Coffee and cotton extend across both of these regions. The cultivation of wheat commences at 3,000 feet; but its growth is not completely established lower than 1,500 feet above this line. Barley is the most vigorous from a height of 4,800 to 6,000 feet. One year with another, it produces 25 or 30 grains for 1. Above 5,400 feet, the fruit of the banana does not easily ripen; but the plant is still met with, although in a feeble condition, 2,400 feet higher. The region comprehended between 4,920 and 5,160 feet, is also the one which principally abounds with the coca, or ***Erythroxylum Peruvianum***, a few leaves of which, mixed with quicklime, support the Peruvian Indian in his longest journeys through the Cordillera. It is at the elevation of 6,000 and 9,000 feet, that the *Chenopodium quinoa*, and the various grains of Europe are principally cultivated, a circumstance which is greatly favored by the extensive plateaus that exist in the Cordillera of the Andes, the soil of which, being smooth, and requiring little labor, resembles the bottom of ancient lakes. At the height of 9,600 to 10,200 feet, frost and hail often destroy the crops of wheat. Indian corn is scarcely any longer cultivated above the elevation of 7,200 feet; 1,000 feet higher, and the potato is produced; but it ceases at 12,600 feet. At about 10,200 feet, barley no longer grows, and rye only is sown, although even this grain suffers from a want of heat. Above 11,040 feet, all culture and gardening cease.



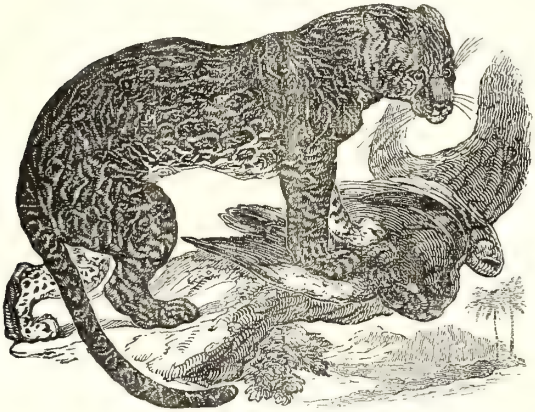
Comparative Size of Animals of South America.

1. Ocelot.
2. Margay.
3. Lama.
4. Jaguar.
5. Sloth.
6. Striated Monkey.
7. Peccary.
8. Tapir.
9. Red-tailed Monkey.
10. Brazilian Porcupine.
11. Paca.
12. Ant-eater.
13. Toucan.
14. Harpy Eagle
15. Condor.
16. King of the Vultures.
17. Rhea or Ostrich.
18. Serpent
19. Macaw.
20. Agouti.
21. Cayman

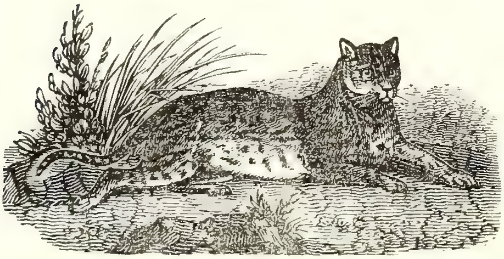
9. *Animals.* The *Jaguar* (***Felis onca***), which is sometimes called the American Tiger, is one of the most formidable animals of the New World. He is to be found in the southern division of America, from Paraguay to Guinea; but he does not appear to inhabit to the northward of the Isthmus of Darien. Even in the south, the race is gradually growing more rare, in consequence of the double temptation to destroy him, which is offered by the desire of getting rid of a beast so destructive to the flocks, and by the high price which is obtained for his skin. More robust and more clumsy than the leopard, he is also much superior in size, as he often measures 4 or 5 feet from the nose to the root of the tail. The jaguar is a solitary animal, residing in forests, especially near large rivers. He is an excellent swimmer, and is equally expert at climbing. He lies in ambush for his prey, on which he pounces suddenly; and his great muscular strength enables him instantly to bear it to the ground. Man he does not often attack, and never but by stealth.



Jaguar.



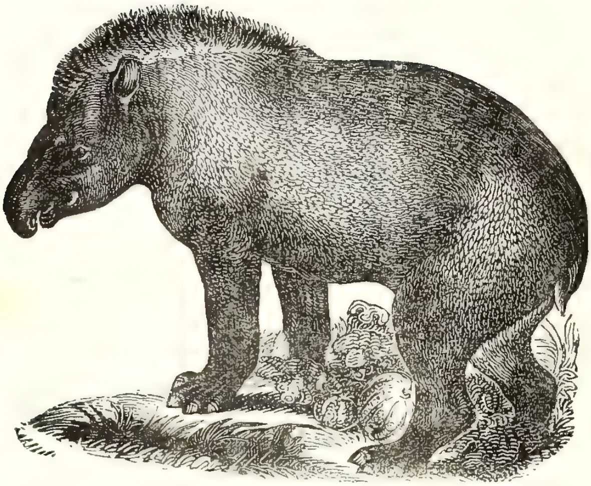
Ocelot.



Margay.

Ferocious as he is in his wild state, the Jaguar, when captive, becomes tame and even mild, and is particularly fond of licking the hands of those with whom he is familiar. The taking of the Jaguar forms a portion of the warlike features distinguishing the Indians of South America, particularly the Llaneros, or men of the plains. The *Cougar* is found in different parts of this country ; it has already been described under the General View of North America. The *Ocelot* (*F. pardalis*) is nearly equal in size to the lynx of Europe, but shorter in its proportions, and more graceful in its form ; it holds, as it were, a middle station between the leopard and the domestic cat. Its body, when full grown, is nearly 3 feet in length, and its tail rather more than 1, while its medium height may be reckoned at about 18 inches. It is extensively spread over the American continent, being found in the widely separated regions of Mexico and Paraguay, where it abides in the depths of the forests during the day, and giving chase at night to birds and small quadrupeds. As it is an active climber, it follows the birds even to their nests. It does not eat with the same ravenous avidity which characterizes nearly all the animals of its tribe. The *Margay* (*F. tigrina*) is much smaller than the ocelot. It resembles the wild cat in the size and shape of its body ; its head only is more square, its snout longer, its ears rounder, and its tail longer, its hair also is shorter, and it has black streaks and spots on a brown ground. Its skin is fawn-colored above, and whitish beneath, with longish spots of dark brown, disposed in fine lines, straight on the back, and oblique on the flanks. The shoulders are spotted with a deep reddish-brown, and bordered with a black-brown. It is very difficult to be tamed, and never loses its natural ferocity ; it varies greatly in its color, though commonly it is such as we have described it. This animal is very common in Brazil and Guiana. There are several other small species of the cat kind.

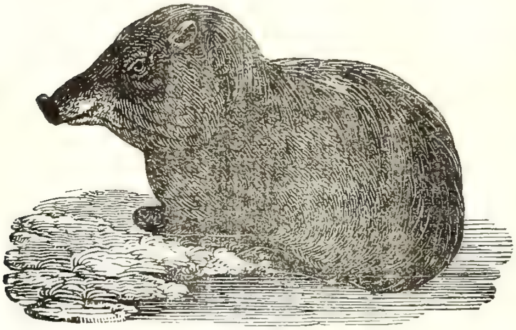
The *Tapir* or *Anta* (*Tapirus Americanus*), is of the size of a small cow, or zebu, but without horns, and with a short, naked tail ; the legs are short and thick ; and the feet have small, black hoofs. His skin is so thick and hard as to be almost impenetrable to a bullet ; for which reason the Indians make shields of it. The tapir seldom stirs out but in the night, and delights in the water, where he oftener lives than on land. He is chiefly to be found in marshes, and seldom goes far from the borders of rivers or lakes. He swims and dives with singular facility. This animal is commonly found in Brazil, Paraguay, Guiana, and in all the extent of South America, from the extremity of Chili to Colombia. Another species has been discovered in the Andes, but is little known. The *Peccary* bears a strong resemblance to the common domestic hog, but is, however, of a distinct species, and differs in several striking characters. But the most remarkable distinction between it and all other



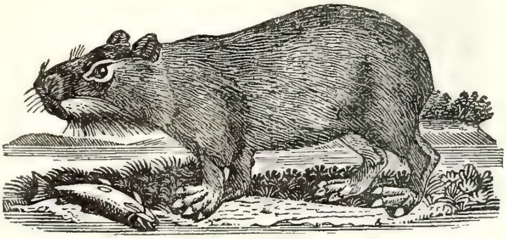
The Tapir.

quadrupeds, appears to consist in a large gland placed immediately beneath the skin on the middle of the loins. These animals are extremely numerous in all parts of South America. There are 2 species; the *Collared Peccary* (*Dicotyles Torquatus*), and the *White lipped Peccary* (*D. labiatus*). The former is the smallest of the two, seldom measuring 3 feet in length. The latter not unfrequently reaches the length of 3 feet and a half. These animals subsist for the most part on vegetable food, chiefly roots; and are said to be dexterous in destroying serpents. Their peculiar grunt is heard at a considerable distance.

The *Cabiai* or *Capibara* (*Hydrochœrus cabybara*), is an amphibious animal, living on fish, fruits, corn, and sugar-canes, &c. It is of a reddish-brown color and web-footed. It is quiet and gentle, and seldom stirs out but at night. Its size is that of a pig of 18 months' growth. It is common in Guiana, Brazil, and all the low districts.



The Peccary.



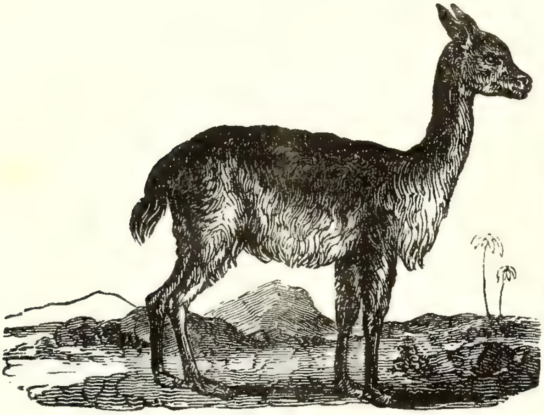
The Cabiai.

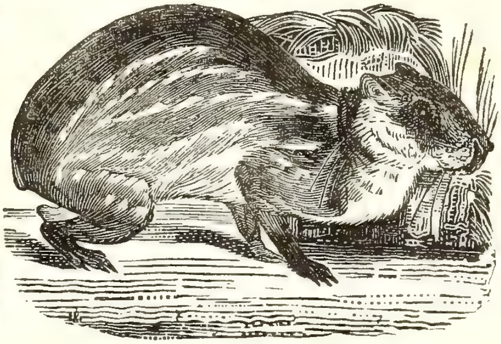
The *Llama* (*Camelus Glama*), is about 4 feet high; its body, comprehending the neck and head, is 5 or 6 feet long; its neck alone is near 3 feet. Peru is said to be the true native country of the Llama; they are conducted into other provinces, but this is rather for curiosity than utility; but in Peru, from Potosi to Caraccas, these animals are in great numbers, and make the chief riches of the Indians and Spaniards, who rear them. Their flesh is excellent food; their hair, or rather wool, may be spun into beautiful clothing; and they are capable of carrying heavy loads over the most rugged and dangerous ways; the strongest of them will travel with 200 or 250 pounds' weight on their backs; their pace is but slow, and their journey is seldom above 15 miles a day; but then they are sure, and descend precipices and find footing among the most craggy rocks, where even men can scarcely accompany them; they commonly travel for 5 days together, when they are obliged to rest, which they do, of their own accord, for 2 or 3 days. They are chiefly employed in carrying the riches of the mines of Potosi. Boli-

The Llama.

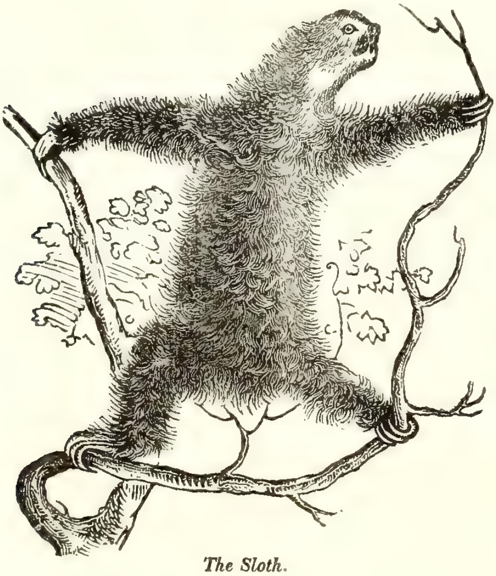
var affirms that, in his time, above 300,000 of these animals were in actual employ. These animals differ in color; some are white, others black, but most of them are brown. The above engraving is drawn from a white Llama in the London Zoological Gardens.

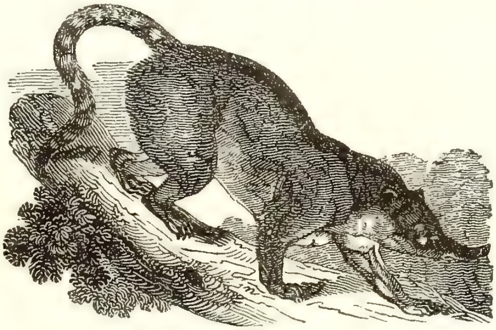
The *Vicuna* (*C vicugna*), the wool of which is very valuable, is smaller than the Llama; its limbs are more neatly formed, and it has no protuberance on the breast. It is of a reddish-brown on the upper part of the body, and whitish on the lower.


The Vicuna.


The Paca.

The *Paca* (*Cœlogenus fulvus*), is about the size of a hare, or rather larger, and in figure somewhat like a sucking-pig, which it also resembles in its grunting and manner of eating. It is generally seen along the banks of rivers, and is only to be found in the moist and warm countries of South America.

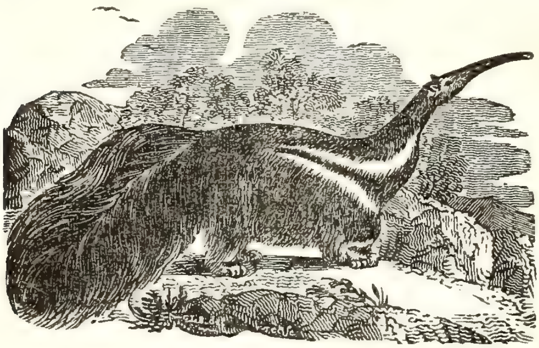

The Sloth.


The Coati.

Of the *Sloth* there are 2 different kinds, distinguished from each other by their claws; the one, which in its native country is called the *Unai* (*Bradypus didactylus*), having only 2 claws upon the fore feet, and being without a tail; the other, which is called the *Ai* (*Acheus ai*), having a tail and 3 claws upon each foot. The hair of the Sloth is thick and coarse at the extremity, and gradually tapers to the root, where it becomes fine as the finest spider's web His fur has so much the hue of the moss which grows on the branches of the trees, that it is very difficult to make him out when he is at rest. The Sloth, in its wild state, spends its whole life in the trees, and never leaves them but through force or accident; and what is more extraordinary, he lives not *upon* the branches, but suspended *under* them. His formation prevents him from moving without much difficulty, along the ground. "The Sloth," says Waterton, "is as much at a loss how to proceed on his journey upon a smooth and level floor, as a man would be who had to walk a mile on stilts upon a line of feather-beds." Leaves and wild fruits constitute the principal food of this animal.

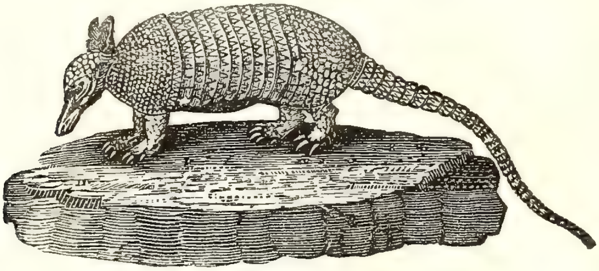
The *Coati* (*Nasua rufa*), in some respects resembles the raccoon, but is of a smaller size; its legs are shorter and its feet longer; but like the raccoon, its tail is diversified with rings, alternately black and fulvous. Its snout, which is movable in every direction, turns up at a point. The *Agouti* (*Chloromys acuti*), is about the size of a hare; and as it has the hair of a hog, so also it has the voracious appetite of that animal. It eats indiscriminately of all things; and when satiated, it hides the remainder, like the dog or the fox, for a future occasion. Its sight is excellent; its hearing equals that of any other animal; and whenever it is whistled to, it stops to hearken. The *Ant-eater* (*Myrmecophaga*) is a singular animal, with a long snout, small mouth, and no teeth; its tongue, of a round form, is remarkably long; and with it, it catches the ants, which are its principal food. On coming to an ant-hill, the animal scratches it up with its claws, and then protudes his slender tongue, which has the appearance of an exceedingly long earth-worm. It is covered with a viscous saliva. To this the ants adhere, and by retracting it he swallows thousands of them. There are 3 species of this animal. The smallest, (*M. Didactyla*) is not much larger than a rat; the next, (*M. tamandua*) is nearly the size of a fox; and the third, (*M. jubata*) a stout and powerful animal, measuring about 6 feet from the snout to the end of the tail. The description given above applies chiefly to the last, which is also called the ant bear, from its mode of defence resembling that of the bear. When attacked by a dog, it seizes him between its powerful fore-legs, and squeezes him to death, or strikes severe blows with its strong, sharp claws. The 2 last-named species have prehensile or holding tails, and live on trees. The race is peculiar to South America, and is extremely useful in diminishing the countless swarms of ants which infest the country.

The Agouti.

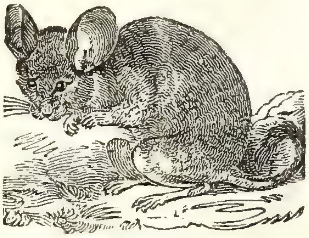


The Ant-eater.

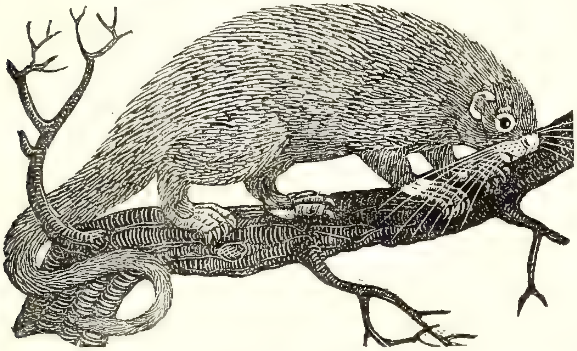
The *Armadillo* (*Dasypus Peba*), which is peculiar to this country, is protected by a crust resembling bone, which covers the head, the neck, the back, and the tail, to the very extremity. There are several species of this animal. They are perfectly harmless, and burrow in the sand-hills like rabbits. The *Chinchilla* (*Chinchilla lanigera*), is a species of field-rat, in great estimation for the extreme fineness of its wool, if a rich fur as delicate as the silken webs of the garden spiders may be so termed. It is of an ash-gray, and sufficiently long for spinning. The little animal which produces it is six inches long, from the nose to the root of the tail, with small pointed ears, a short muzzle, teeth like the house-rat, and a tail of moderate length, clothed with a delicate fur. It lives in burrows under ground in the open country of Chili, and other parts of South America.



The Armadillo.



The Chinchilla



Brazilian Porcupine.

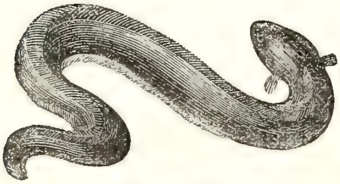
The *Guinea Pig* (*Caara Cobaya*) is smaller than the rabbit, and its legs are shorter. The ears are short, thin, and transparent; the hair is like that of a sucking pig, whence it has taken the name; and it wants even the vestiges of a tail. In other respects, it has some similitude to the rabbit. The *Couando*, or *Brazilian Porcupine* (*Synetheres prehensilis*), is much smaller that the porcupine of Asia; its quills are 4 times shorter, its snout more unlike that of a hare; its tail is long enough to catch by the branches of trees, and hold by them. It may be easily tamed, and is to be found chiefly in the southern parts of America; yet is not wanting also in the northern.

The *Monkeys* of the new continent differ from those of the old, in the make of their nostrils, in their having one tooth more in each set, and in having no pouches on each side of the jaw. They differ also from each other, a part of them making no use of their tails to hang by; while others of them have the tail very strong and muscular, and serving by way of a fifth hand, to hold by. Those with muscular holding tails, are called *Sapajous*; those with feeble, useless tails are called *Sagoins*. Of both there are several sorts. The first of the sapajous is the *Warine*, or the Brazilian *Quariba* (*Mycetes fuscus*). This monkey is as large as a fox, with long, black hair, and remarkable for the loudness of its voice. It is the largest of the monkey kind to be found in America. The second is the *Coati* (*Atelesater*); which may be distinguished from the rest by having no thumb, and consequently but 4 fingers on the 2 fore-paws. The tail, however, supplies the defects of the hand; and with this the animal slings itself from one tree to another, with surprising rapidity. The third is the *Sajou* (*Cebus apella*), distinguished from the rest of the sapajous by its yellowish, flesh-colored face. The fourth is the *Sai* (*C. capucinus*). It is somewhat larger than the *sajou*, and has a broader muzzle. It is called also the *bewailer*, from its peculiar manner of lamenting when either threatened or beaten. Of the sagoins, or monkeys that do not held by the tail, is the *Samari*, or *Aurora* (*Sanguinas sciureas*), which is of a fine orange color, with 2 circles of flesh round the eyes. It is a very tender, delicate animal, and held in high price. The next and the largest is the *Saki*, or *Cagui* (*Pittecia*), so remarkable for the length of the hair on its tail, that it has been often termed the *Fox-tailed Monkey*. It is of different sizes, some being twice as large as others. The third of the kind is the *Tamarin* (*Midas*), which is usually black, with the feet yellow. Some, however, are found all over brown, spotted with yellow. The fourth is the *Wistiti*, or *Striated Monkey* (*Jacchus*), and remarkable for the large tufts of hair upon its face, and its annulated tail. The fifth is the *marikina* (*Midas rosalia*), with a mane round the neck, and a bunch of hair at the end of the tail, like a lion. The sixth is called the *Pincho* (*M. œdipus*), with the face of a beautiful black, and white hair, that descends on each side of the face, like that of a man. The last, least, and most beautiful of all is the *Mico* (*Jacchus argentatus*); the hair on its body is of a beautiful silver color, while the tail is of a deep brown, inclining to blackness. The Indians eat the flesh of these animals.

The *Bats* are surprisingly numerous, and are powerful instruments in the system of nature, to keep the myriads of flying insects within due limits; some, however, live almost entirely upon fruits, while yet others enter the stables or houses and suck the blood of the cattle, or even of men. The *Vampire* or *Spectre-bat* (*Vampirus sanguisuga*), is the largest and most dangerous of these last, and, according to the celebrated traveler, La Condamine, it has wholly destroyed the large cattle introduced by Europeans, in some districts; it attacks the victim during sleep, and without giving pain, extracts large quantities of blood. The spectre-bat is about the size of a pigeon, and some have been found which measured 30 inches in extent.

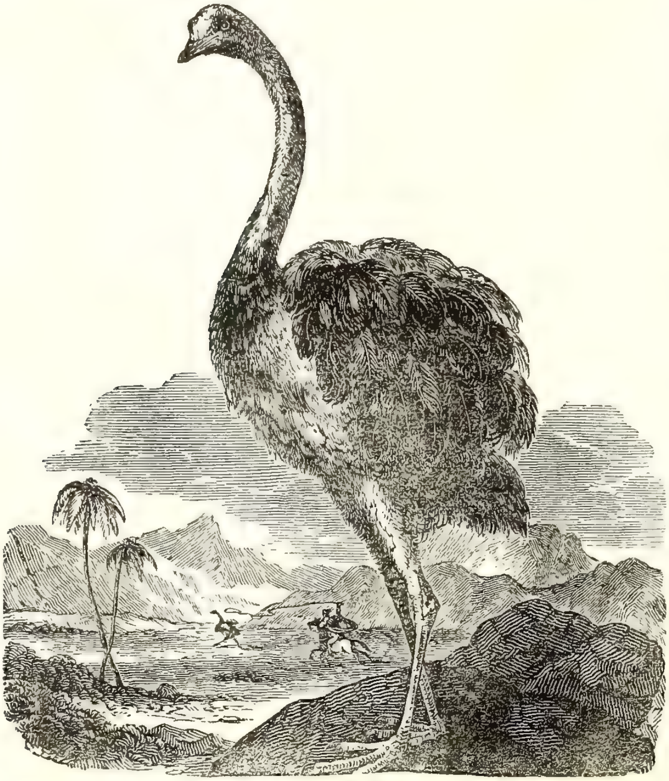
The woods of this country are full of venomous reptiles and serpents, and *Caymans* or *Alligators* (*Crocodilus palpebrosus*), are numerous on the banks of the rivers. The *Boa*, or as it is called in the country, the *Aboma*, is a large, amphibious snake, about 40 feet in length, and 4 or 5 in circumference; it is indifferent as to its prey, and destroys, when hungry, any animal that comes within its reach; the negroes consider it excellent food, and its fat is converted into oil

It is met with principally in Guiana and the northern parts of Brazil. The ***Rattlesnake*** and ***Dipsas*** also abound ; the sting of the latter is not always fatal, but it produces fever, accompanied with excessive thirst, from which circumstance it derives its name.



Electrical Eel.

Among the fish kind of this country, the ***Gymnotus***, or ***Electrical Eel***, is the most remarkable, as possessing the singular faculty of stunning its prey by an electrical shock. This eel abounds in the rivers and lakes of the low lands of Colombia, but is most frequently found in the small stagnant pools, dispersed at intervals over the immense plains between the Apure and Orinoco. It is of considerable size, being about 6 feet long. The electrical shock is conveyed either through the hand, or any metallic conductor which touches the fish ; and a stroke of one of the largest kind, if properly applied, would prove instant death, even to one of the human species. Even the angler sometimes receives a shock from them, conveyed along the wetted rod and fishing line. An old frequented road near Uruticu, has been actually abandoned, on account of the danger experienced from crossing a ford, where the mules were, from the effect of concealed shocks, often paralyzed and drowned.



American Ostrich.

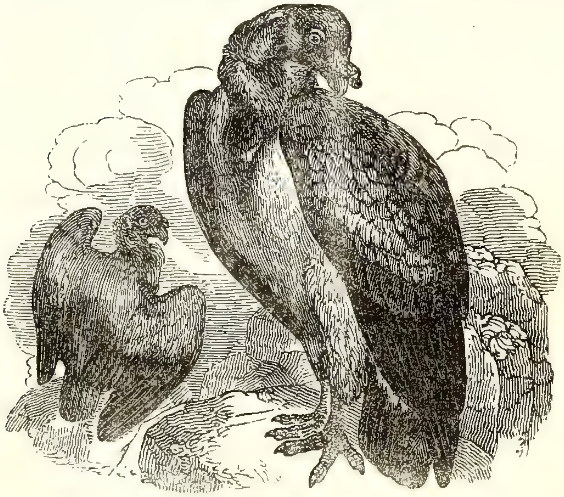
The ***Rhea***, or ***American Ostrich*** (***Struthio Rhea***), in size, is very little inferior to the common one ; the bill is sloped, not unlike that of a goose, being flat at the top and rounded at the end ; the eyes are black, and the lids furnished with hairs ; the head is rounded, and covered with downy feathers ; the neck is 2 feet 8 inches long, and feathered also ; from the tip of 1 wing to that of the other, extended, the length is 8 feet ; it cannot fly, but it runs very swiftly ; the legs are stout and bare of feathers above the knees, and furnished with 3 toes, all placed forwards, each having a straight and stout claw ; on the heel is a callous knob, serving in the place of a back toe ; the general color of the plumage is dull gray, mixed with white, inclining to the latter on the under parts ; the tail is not very short and conspicuous, being entirely covered with long, loose, and floating feathers, having its origin from the lower part of the back and rump, and entirely covering it ; the bill and legs are brown.

The ***Condor*** (***Vultur gryphus***) forms the type of a genus, a second species of which is the King of the Vultures (***V. papa***) of British writers ; in size it is little, if at all, superior to the Bearded Griffin, the Lammergeyer of the Alps. The greatest authentic measurement scarcely carries the extent of its wings beyond 14 feet, and it appears rarely to attain so gigantic a size. M. Humboldt met with more that exceeded 9 feet, and was assured by many credible inhabitants of the Province of Quito, that they had never shot any that measured more than 11. The beak of the Condor is straight at the base, but the upper mandible becomes arched towards the point, and terminates in a strong and well-curved hook. Round the lower part of the neck, both sexes, the female as well as the male, are furnished with a broad, white ruff of downy feathers, which forms the line of separation between

Condor.

the naked skin above and the true feathers covering the body below it. The condor has been observed throughout the whole range of that immense chain of mountains which traverses the continent of South America, from the Straits of Magellan to the seventh degree of north latitude. It appears, however, to be much more common in Peru and Chili than in any other part of the chain, and is most frequently met with at an elevation of from 10,000 to 15,000 feet above the level of the ocean. Here, in the regions of perpetual snow, they may be seen grouped together to the number of 3 or 4, but never in the large troops in which the true vulture sometimes assemble on the bold points of the jutting rocks, many of the most remarkable of which are designated by the natives with names derived from the bird that haunts their pinnacles. It is only when driven by hunger, that it descends into the plains, which it quits as soon as its appetite is satisfied, unable, as it would seem, to support for any great length of time the increased weight of the atmosphere, and the warmer temperature of the lower world. On such occasions it rarely perches on the branches of the trees, but generally takes up a position on the ground, for resting on which its comparatively straight talons are peculiarly fitted. It is said, that the female bird builds no nest, but deposits its eggs upon the bare rock without protection of any kind. These eggs are stated to be perfectly white, and 3 or 4 inches in length.

The *King of the Vultures* is unquestionably one of the handsomest, although among the smaller species of the vulture family. When fully grown, it measures about 2½ feet in total length, and more than twice as much in the expanse of its wings. The only other American vultures, the Turkey Buzzard, and the Black Vulture, described under North America, form a distinct genus nearly related to this, but differing essentially in several important points. The ***Brazil-***


King of Vultures.

Brazilian Caracara Eagle.

ian Caracara Eagle (*Polyborus Braziliensis*) is found in Brazil and other parts of South America. The sloth, the filth, the wretchedness of these birds almost exceed credibility. In the Brazils, where they are found in great abundance, when they light upon a carcass, which they have liberty to tear at their ease, they so gorge themselves, that they are unable to fly ; but keep hopping along when they are pursued. The *Harpy Eagle* (*Harpyia destructor*) is distinguished from other eagles by the shortness of its wings, the extreme robustness of its legs, and the more than ordinary curvature of its beak and talons. It is so bold, that it does not scruple to attack the most ferocious beasts, and sometimes even man himself.

Harpy Eagle.

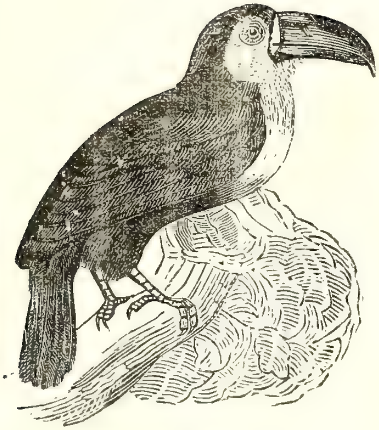
Vulturine Caracara Eagle.

The *Vulturine Caracara Eagle* places beyond a doubt the affinity between the eagle and vulture families. The beak of this animal is deep, elongated, and nearly similar in form to that of the Caracara, but much more compressed or flattened at the sides. The naked space of the cheeks is less extensive and less defined at its edges, but entirely surrounds the eyes, which are placed in both birds almost on a level with the general surface of the head. The wings are long, reaching to, or even beyond, the extremity of the tail, and are rounded in their outline. In manners this bird resembles the genuine eagle, having the same upright attitude, subsisting entirely upon flesh, and refusing fish if offered to them.

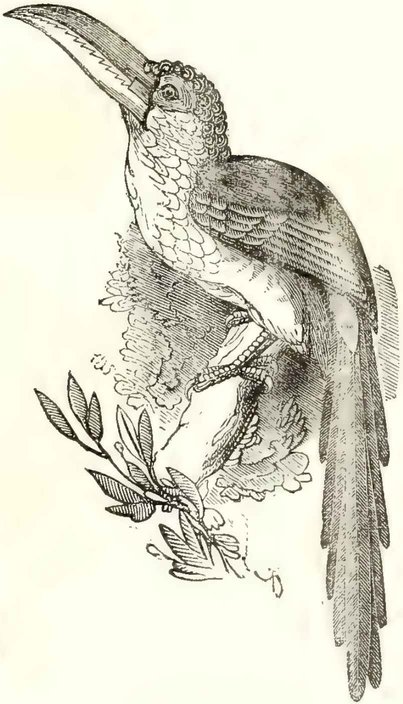
Chilian Sea Eagle.

The *Chilian Sea Eagle* (*Halætus aguia*) measures about 2 feet from the point of the beak to the extremity of the tail, and from 4 to 5 in the expanse of its wings. The feathers of the head, neck, and upper part of the body, are of a blackish blue. The naked part of the leg is of a light yellow.

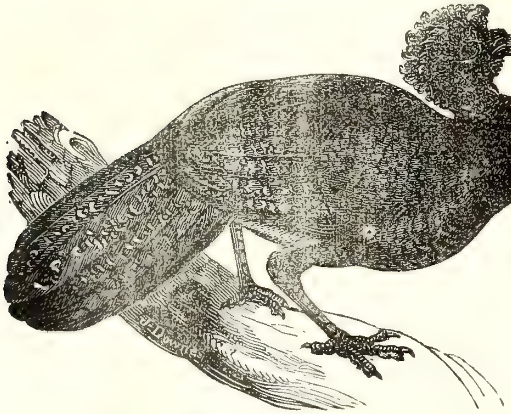
The ornithology of this country is extremely rich and varied. Birds of the most singular forms, and of the most superb plumage, flutter, singly, or in companies, through the fragrant bushes. The green, blue, or red *Parrots*, assemble on the tops of the trees, and fill the air with their screams. The *Toucan* (*Rhamphastos*), sitting on the extreme branches, rattles with its large, hollow bill, and in loud, plaintive notes calls for rain. This bird is prized for its feathers, which are of a lemon and bright red color, with transversal black stripes reaching the extremity of its wings ; it is about the



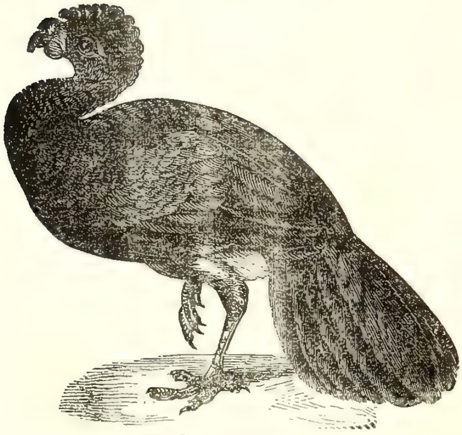
Toucan.



Curl-crested Araçari.

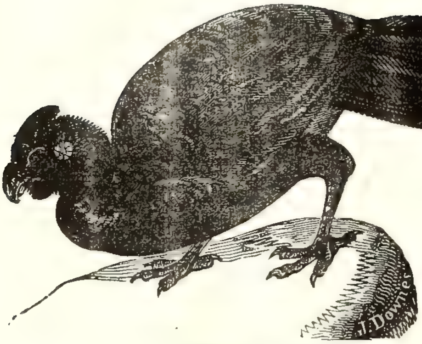


Crested Curassow.



Red-knobbed Curassow.

size and shape of a Jackdaw, with a large head to support its monstrous bill, which, from the angles of the mouth to the point, is 6½ inches ; and its breadth in the thickest part is a little more than 2. The *Araçaris* (*Pteroglossus*) belong to the same family with the Toucans ; one of the most beautiful of the genus is the *Curl-crested Araçari* (*P. ulocomus*) ; this splendid bird is found in the forests of Brazil, but is extremely rare. The head is covered with a glossy, jet-black crest of curled feathers, the back is of a deep red and olive green, the breast and sides are yellow, with bars or stairs of red. The singular and beautiful genus of *Couroucous* (*Trogen*) is peculiar to the tropical forests of America. The *Curassows* (*Crax*) are nearly allied to the Pheasant tribe, in which, indeed, they are generally classed. They are natives of South America, living in woods, and feeding on berries, fruit, grain, &c. They are nearly of the size of the Turkey, and, being very familiar, are easily domesticated Their introduction into our barn-yards would certainly be very desirable, not merely on account of their size and beauty, but for the excellence of their flesh, which is said to excel that of the Guinea-hen or Pheasant in delicacy of flavor. There are several species, among which are the beautiful *Crested Curassow* (*C. alector*), which is common in Guiana and Brazil, and easily taken or killed ; the *Red-knobbed Curassow* (*C yarellii*), and the *Razor-billed Curassow* (*C. mitu*). The *Guans* (*Penelope*) are hardly to be distinguished from the true Curassows, but are not found in flocks. They are easily domesticated, and their flesh is highly

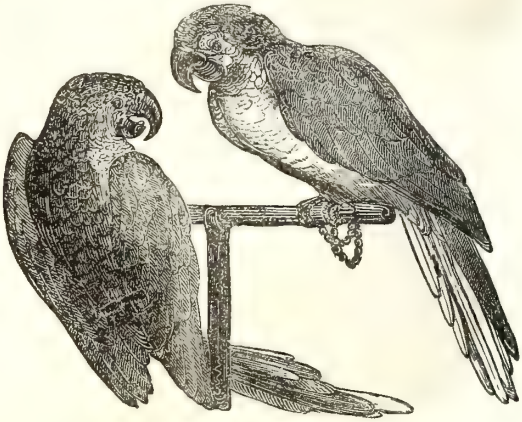


Razor-bill Curassow.

Guan.

esteemed. It is rather larger than the common fowl, and the head is surmounted with a tufted crest. The *Boat-bill* (*Cancroma cochlearea*), a native of Brazil and Guiana, belongs to the Heron family. It frequents the rivers and lakes of these warm regions, and, patiently keeping upon some overhanging branch, plunges with unerring aim upon its finny prey beneath. A long, jet-black crest, falling down upon its white back, produces a beautiful effect. Among the other birds of this country are the *Orioles*, the *Macaws*, and the delicate *Humming-birds*, which rival in beauty and lustre, diamonds, emeralds, and sapphires, and dart like beams of light from flower to flower.

Boat-bill.



Macaws.

Manatees or *Sea-cows* are a cetaceous animal, found in the large rivers of South America. They are herbivorous, and attain the length of from 10 to 12 feet. Their flesh resembles pork; oil is obtained from their fat, and cordage and whips are made from their hides.

10. *Inhabitants.* The population of South America is composed of whites, native Indians, blacks, and mixed races. The whites, with the exception of the English, French, and Dutch of Guiana, are principally of Spanish or Portuguese origin. They are found upon the table lands, and sides of the Andes, and in the maritime regions, the greater part of the interior being inhabited by Indians. The negroes are not numerous, except in the European colonies of Guiana, and in the empire of Brazil, in both of which slaves abound. The Indians are in part entirely independent of the governments, within whose limits their territories are nominally included, and are in part converted to Christianity, and subjected to the established authorities. Like the natives of North America, whom they resemble in their general physi

cal characteristics, the Indians of South America are composed of a great number of tribes, speaking different languages, and different dialects of the same language. We shall mention some of the most remarkable tribes and families.

The Pecherais inhabit the Terra del Fuego, or Magellanic Archipelago ; they subsist chiefly on shell fish, and seem to be sunk to the lowest degree of barbarism. The Tehuelhets, commonly called Patagonians, lead a wandering life in the vast regions of Patagonia, and are remarkable for their gigantic size. They have herds of guanacos, and have learned to manage the horse. The Moluches, or Araucanians, are a warlike and powerful nation, distinguished for their progress in civilization. They have a regularly constituted government, practise agriculture, and have some acquaintance with astronomy, medicine, and other arts and sciences. They have become acquainted with the use of firearms, and are in all respects the most civilized of the native tribes, who have preserved their independence. Their territory lies between the Biobio and the Valdivia, comprising the southern part of Chili and the northern part of Patagonia.

The Puelches rove through the vast plains or pampas on the southern border of Buenos Ayres, and are often at war with the neighboring whites. They are fierce and warlike, and are mounted on horses. The Abiponians live further north, and subsist chiefly by hunting and fishing. They are remarkable for their great size, and warlike disposition, but their number has been much diminished by their continual wars with the Spaniards and the neighboring tribes.

The Quichuas or Peruvians form the mass of the population in Bolivia, Peru, and part of the republic of the Equator. Their ancestors were the most civilized nation of South America, at the time of the arrival of the Spaniards. According to their traditions, art, law, and religion had been introduced among them by Manco Capac, the child of the sun, whose descendants still reigned over the country, under the title of Incas. There are still many remarkable monuments remaining of this interesting people, such as roads, canals, temples, palaces, fortresses, &c. They were acquainted with the arts of mining, of working in gold and silver, of polishing precious stones, manufacturing cloth, &c. Although ignorant of alphabetic writing, they preserved the memory of events, laws, treaties, &c., by means of symbolical paintings, and of quipos, or knotted cords of various colors, which expressed different ideas.

The Caribs inhabit the plains of the Orinoco, and were once found on the Antilles. The islanders, now extinct, are represented to have been cannibals, and the tribes of the continent have been distinguished for their fierceness and warlike propensities. They were formerly actively engaged in trade, and made use of the quipos above described. The Ottomacs, another tribe living upon the Orinoco, present the singular spectacle of mud-eaters, the mud of that river forming, during the inundations, their principal food.

11. *Political Divisions.* South America comprises the following states and colonies. Here, even more than in North America, vast tracts are nominally included within the territories of the different powers, which exercise no actual jurisdiction over them.

	Area.	Population.	Government.
New Grenada	380,000	1,700,000	Republic
Venezuela	450,000	900,000	do.
Ecuador	325,000	650,000	do
Peru	500,000	1,800,000	do
Bolivia	410,000	1,300,000	do.
Brazil	3,000,000	5,000,000	Empire
Argentine Republic	900,000	800,000	Republic
Uruguay	80,000	70,000	do.
Paraguay	100,000	250,000	Dictatorship
Chili	172,000	1,400,000	Republic
British Guiana French Guiana Dutch Guiana	135,000	240,000	Colonial

CHAPTER LVIII. NEW GRENADA.

PHYSICAL GEOGRAPHY.

1. *Situation and Extent.* The republic of New Grenada is bounded on the N. by the Caribbean Sea ; on the W. by the Pacific Ocean ; on the E. by the republic of Venezuela, and on the S. by the republic of the Equator. On the northwest it borders on the Central

American confederacy It extends from lat. 2° S. to 12° N, being 980 miles in length, from north to south, with an area of 380,000 square miles, and 1,700,000 inhabitants.

2. *Mountains.* The country is traversed by several chains of the Andes, the basis of which, as in the mountainous chains of Mexico, are elevated plains or table-lands, which are from 6,000 to 9,500 feet above the level of the sea. Near the southern frontier in the vicinity of Popayan, the great chain of the Andes diverges into 3 principal chains ; the eastern separates the valley of the Magdalena from the head streams of the Orinoco, and, running in a northeasterly direction to the east of Bogota and Pampelona, passes into Venezuela ; the central chain, called the Quindiu mountains, lies north and south between the Magdalena and the Cauca, attaining in some places an elevation of about 18,000 feet ; the western or Choco chain passes in a northwesterly direction, into the isthmus of Panama, where it is connected with the great mountainous system, that traverses North America. The valleys between these chains, form the great plateau of New Grenada, upon which the population is chiefly concentred. Near the northern coast is the Sierra of Santa Martha, some of the summits of which rise to the height of above 19,000 feet.

3. *Rivers.* The *Magdalena* rises at the point where the several chains above described separate, and flows north into the Caribbean sea, which it enters by several mouths, after a course of 900 miles. It receives numerous tributaries, of which the *Cauca* is the principal. These rivers are navigable for steam vessels. The head branches of the *Amazon* water the southeastern part of the country. The *Guaviare* and *Meta*, tributaries of the *Orinoco*, and the *Negro* and *Caqueta*, tributaries of the Amazon, are large rivers rising in the eastern chain of the Andes.

4. *Bays.* The gulf of Darien and the *bay of Panama* in the north are separated by the narrow strip of land called the isthmus of Panama or Darien.

5. *Climate and Soil.* The description already given of the climate of Mexico applies in a great measure to that of this country. The low country on the coast is hot and unhealthy, but the traveler, on ascending the table-land, enters a region of perpetual spring. So rapid is the transition, that the eye can at once embrace plains covered with the oaks, elms, cereal grasses, and other plants of the temperate zone, look down upon the tropical regions of the palms, the bananas, and the sugar-cane, and behold above him mountains, over which broods an eternal winter. The soil is extremely fertile, and produces in great richness and abundance, the varied vegetation of its different climates.

6. *Minerals.* Rich mines of silver are found in the mountains, but have been little worked ; the gold washings in the mountains of Choco, in which platina also occurs, furnish about 20,000 marcs of gold, of the value of nearly $ 3,000,000 a year. Precious stones of different kinds abound. The emerald mines of Muzo, near Bogota, and those of Somondoco in the department of Boyaca, have furnished great quantities of emeralds.

7. *Natural Curiosities.* The cataract of Tequendama near Bogota, presents an assemblage of all that is picturesque. The river of Bogota, which, just above the fall, is 144 yards in breadth, is contracted, at a crevice in the rock, to a width of 12 yards, and is poured by 2 descents down a depth of 574 feet, into an almost fathomless abyss. The waters as they beat against the rocks beneath, rise up sometimes in columns, sometimes in myriads of fleecy and fantastic shapes, like those formed by fire-works. The immense clouds of vapor, when illuminated by the sun, form beautiful rainbows. The plain above the fall is covered with the grains of temperate regions, while at its foot grow the palms and sugar-cane of the tropics. The natural bridge of Iconónzo, is a natural arch of stone, 50 feet long and 40 wide, stretching over a deep chasm, through which rolls a torrent forming 2 beautiful cascades. The height of the bridge above the stream is 318 feet. Sixty-four feet below this bridge is a second, composed of 3 enormous masses of rock, which have fallen so as to support each other. The cavern below is haunted by thousands of nocturnal birds. At the village of Turbaco near Carthagena, there is a singular group of air-volcanoes, consisting of conical hillocks from 20 to 25 feet high, on the summit of which are cavities filled with water ; from these issue bubbles of gas, which often project the water to a considerable height, while a constant succession of explosions is heard under ground.

POLITICAL GEOGRAPHY.

1. *Divisions ; Government.* New Grenada comprises the territories of the former Spanish

province styled the viceroyalty of New Grenada; its government is republican; it is divided into 5 departments, which are subdivided into 18 provinces.

Departments.	*Capitals.*
The Isthmus,	Panama.
Magdalena,	Carthagena.
Boyaca,	Tunga.
Cundinamarca,	Bogota.
Cauca,	Popayan.

2. *Towns.* *Bogota*, the capital of the republic, is situated on the table-land of New Grenada, and is in general well built. The houses are low, consisting of only one or two stories, on account of the frequency of earthquakes. The principal public buildings are the cathedral, the government palace, which contains the executive offices, the representatives' hall, and the residence of the president, several convents, more remarkable for their size and solidity than for beauty, the mint, &c. The cathedral contains an image of the Virgin, adorned with 1,358 diamonds, 1,295 emeralds, and many other precious stones. The other 26 churches are all resplendent with gold and jewels. Here are also a university and several other learned institutions. Population, 40,000. The beautiful plain in which the city stands, having an elevation of 8,700 feet, enjoys a mild and healthful climate.

Carthagena possesses the finest harbor in the country, and has a thriving commerce, with 18,000 inhabitants. It is built on a sandy island, which is connected with the continent by bridges, and the narrow, dark, and crooked streets give it a gloomy appearance. Its strong military works, and its vast reservoirs for supplying the inhabitants with water, deserve notice. The marshes in the vicinity render it unhealthy.

Santa Martha, on the coast to the northeast of Carthagena, has a good harbor, strongly defended, an active commerce, and a population of 6,000. *Porto Bello*, on the Isthmus of Panama, celebrated for the great fair formerly held in it, is now much declined, on account of the insalubrity of its climate. *Rio Hacha* is a small town, but important for its pearl-fishery and trade. *Panama*, on the south side of the isthmus, and at the head of the bay of the same name, has a thriving and extensive commerce, with about 10,000 inhabitants. *Popayan*, with 7,000 inhabitants, situated at the foot of the great volcanoes of Purace and Sotara, is a handsome and well built town. *Pasto*, near the southern frontier, surrounded by volcanic mountains, was completely destroyed by an earthquake, in 1834. Population, 10,000.

3. *Inhabitants.* The population, like that of Mexico, is composed of Creoles, Indians, negroes, and the different mixed races, and bears a general resemblance to that of the Mexican States. The whites are, however, less numerous, and there is a greater proportion of negroes. In dress, the ladies follow the Spanish fashions. The mantilla is general, and at Bogota the females wear a broad beaver hat. The general language is the Spanish. The manner of building is light. In the cities, the houses are generally low, from fear of earthquakes. Hammocks are often used for beds, and sometimes suspended from trees. The Grenadians have several light meals in the 24 hours. At 7 in the morning, they have chocolate; at 10, soup, eggs, &c.; and a dinner at 2. Between that hour and 5, comes the siesta, which is followed by chocolate, and afterwards by a supper. Chocolate is universally used. All provisions are abundant and cheap. In some large towns, where copper coin is unknown, eggs are the small change. If a person buys at a shop something worth less than 5 cts., he receives several eggs with the merchandise. The abuse of intoxicating liquors is less pernicious than in Mexico. All classes, even ladies, smoke tobacco made into small cigars. The most fatal diseases are the pulmonic fevers. The character of the people resembles that of the Mexicans, being of a common origin. The ladies generally, but especially at Bogota, are said to have many attractions. The people are generally indolent and ignorant, but ingenious. They are little acquainted even with the history and geography of their own country. They are superstitious and fond of show, but the society is tending to improvement. The most general amusements are dancing, and gaming at billiards, tennis, and cock-fighting.

The country is very thinly peopled, and there are extensive unoccupied tracts and wildernesses. In the mountainous regions, the usual mode of traveling is in chairs tied to the backs of *cargueros* or porters. The mountains are so difficult to be crossed, that they must either be passed on foot or in this manner. Travelers in traversing the great forest of the Quindiu Mountains, which extend for 12 or 15 days' journey, take a month's provision, as the melting of snows, or violent rains, often prevent them from proceeding. The cargueros provide themselves with the large leaves of a species of banana, and on the spot where they wish to pass the night, or are compelled to stop by rain, erect a frame of branches of trees, and cover it with these leaves, which, being water proof, afford a comfortable shelter.

The bridges which are thrown over the torrents of the Andes, and from steep to steep, are of the most fragile description. In general, a few rough planks are laid across, and covered with earth and branches; no fence, and no breadth of more than 4 feet being thought necessary. Where the space is too great to be passed in this way, a bridge of cable is constructed, which rocks beneath the traveler at every step. Sometimes a single rope is stretched across, and a basket is made to pass from one end to the other.

4. *History.* The Spanish province of New Grenada declared itself an independent State in 1811, and after a long and severe struggle with the mother country, expelled the Spaniards from its territory. The memorable victory of Carabobo, in 1821, completed the downfall of the Spanish authority. In 1819, New Grenada formed a union with Venezuela, under the title of the Republic of Colombia, and Quito subsequently acceded to the confederacy; but this connexion has recently been dissolved, and New Grenada has again formed a separate government, upon republican principles. The Roman Catholic is the established religion of the State, and the inhabitants are rigidly devoted to this form of religion.

CHAPTER LIX. VENEZUELA.

PHYSICAL GEOGRAPHY.

1. *Extent and Population.* The Republic of Venezuela comprises the territories of the former Spanish Captain-generalship of Venezuela or Caraccas, and extends from New Grenada on the west, and Brazil on the south, to the Caribbean Sea and the Atlantic Ocean, having an area of 450,000 square miles, and a population of about 900,000 souls.

2. *Mountains.* The great eastern chain of the Andes enters the republic from New Grenada, and extends, nearly parallel to the coast, across the northern part to the Gulf of Paria. It is known under the name of the *Maritime Cordilleras* of Caraccas or Venezuela, and some of the summits rise to the height of 18,000 feet. The *Silla of Caraccas*, near the city of that name, has an elevation of 8,750 feet. There are some mountainous ridges in the south, called the *Parima Mountains*, the direction of which is imperfectly known. *Mount Duida*, near Esmeraldas, has an elevation of about 8,000 feet.

3. *Plain.* The most remarkable feature of this country is the vast plain which constitutes the greater part of its surface. It extends from the Caqueta, in New Grenada, to the mouths of the Orinoco, occupying the whole space between the mountainous chains already described. Including a part of New Grenada, it has an area of 350,000 square miles, but slightly broken, and intersected by numerous rivers. On the borders of the streams and ponds, there are thickets of palm, but the rest of this great level consists of open plains, called by the Spaniards *llanos*, covered only with grass. In the dry season, the llanos present the aspect of a desert; the grass is reduced to powder, the ground cracks with the heat and drought, and the alligators and serpents, having buried themselves in the mud, remain in a torpid state until they are revived by the wet season.

4. *Rivers.* The *Orinoco* is one of the largest rivers in the world. Rising in the mountains of Parima, it flows, after a very circuitous course of upwards of 1,500 miles, by about 50 mouths, into the Atlantic Ocean. The principal mouth is nearly 6 leagues wide. The Orinoco receives a great number of tributaries, several of which are large navigable rivers. The *Guaviare*, *Apure*, and *Meta*, which rise in the Andes of New Grenada, and the *Ventuari* and *Caroni*, which have their sources in the Parima Mountains, are the principal. During the rainy season, it inundates the vast plain through which it flows, presenting in some places an expanse of water 80 or 90 miles in extent. Immediately on its banks are impenetrable forests, from which are heard the cries of the jaguar, the puma, innumerable troops of monkeys, pecaries, and other animals; while the gigantic boa swings from the branches of the trees, ready to seize its prey, huge alligators, long files of river porpoises, and great numbers of manatees, crowd its waters.

5. *Lakes.* The principal lakes are that of *Maracaybo*, which is, properly speaking, a gulf of the Caribbean Sea, and is deep and navigable, and the *Lake of Valencia.* The latter is 34 miles in length, by 6 or 8 in breadth, covered with beautiful islands, and well stocked with fish

6. *Climate and Soil.* The seasons are here divided into the wet and the dry, and, as there is little variety of surface, a high temperature prevails throughout the country during the whole year. The soil is fertile, producing coffee, cotton, sugar, cocoa, indigo, cassava, plantains, and various medicinal plants and edible roots. The vegetation is characterized by great vigor and freshness, and such is the nutritious quality of the vegetable food here used, compared with that of the cereal grains of the temperate climates, that a much smaller extent of ground is able to maintain a given number of persons.

POLITICAL GEOGRAPHY.

1. *Divisions.* Venezuela is divided into 4 departments, which are subdivided into 12 provinces.

Departments.	Capitals.	Departments.	Capitals.
Zulia,	Maracaybo.	Maturin,	Cumana.
Venezuela,	Caraccas.	Orinoco,	Varinas.

2. *Towns.* The capital is *Caraccas*, which, before it was ravaged by an earthquake, in 1812, contained 45,000 inhabitants. It is now much reduced, but is the centre of an extensive commerce. Its situation is pleasant, and being elevated, it enjoys a perpetual spring. The population at present does not exceed 20,000. *La Guayra*, its port, has a poor harbor, and is extremely unhealthy. It contains about 6,000 inhabitants.

Maracaybo, on the gulf of the same name, with 20,000 inhabitants ; *Puerto Cabello*, with a fine harbor, strong military works, and 3,000 inhabitants ; *Valencia*, a pleasant town, with a delightful climate, and 15,000 inhabitants ; *Barcelona*, a great mart for the smuggling trade with the English islands, with a population of 5,000 ; and *Cumana*, which has much declined, but still contains about 10,000 inhabitants, are commercial places on the northern coast.

In the interior, *Varinas* and *Angostura*, with 3,000 inhabitants each, are the principal towns. *Merida*, with 5,000 inhabitants, and *Coro*, with 4,000, are the other most important towns. It was in this region, that report placed the fabulous El Dorado, the Golden Kingdom of Manoa, which was the object of so many expeditions in the 16th century. Here, it was asserted, were more splendid cities and greater abundance of gold than even the wealthy Peru could boast, and, as late as 1780, a large party of Spaniards perished in search of this golden realm.

3. *Inhabitants.* The whole country is thinly inhabited, and the greater portion is occupied by Indians, the whites being only about 220,000, and the blacks, 60,000. Many of what are called the wild Indians or Indios bravos, dwell in villages, and raise plantains, cassava, and cotton. The civilized Indians are those among whom the Spaniards have established missions, and introduced Christianity. They are indolent, peaceful, and ignorant. The population may in general be divided into 3 classes, corresponding to the 3 great natural divisions of the country. Along the shore, in the valleys, and on the mountains, agriculture and commerce are pursued, and here the whites are most numerous. In the great plains, the inhabitants or llaneros, as they are called, lead a pastoral life, raising large flocks and herds, and keeping great numbers of horses, all of which abound in these natural pastures. These are chiefly Indians and mixed races. In the woody and mountainous regions of the south, beyond the Orinoco, are tribes of hunters, many of whom are at perpetual war with each other, and have all the characteristics of savages. Of the native Indian tribes in Venezuela, the Caribbees are the ruling people. No nation is stamped with a deeper brand of ferocity, the very name, converted into cannibals, being applied to signify eaters of human flesh. The charge, however, appears to have been exaggerated by the Spaniards, who met with a most fierce resistance, and sought to justify their own atrocities by this imputation. They were long considered extinct, but they are now known to be numerous on the Orinoco. They are a fine, tall race, and they shave a great part of the forehead, wearing only a tuft on the crown. They have dark, intelligent eyes, a gravity of manner, and an expression of sadness and even severity in their features. They still retain the pride of a conquering people, who, before the arrival of the Spaniards, had driven before them all the native tribes of that region, and in many points of their history and present condition, they remind us of the Iroquois of our own wilds. They are now completely subject to the missionaries ; but they still practise the barbarous custom of raising the flesh along the legs and thighs. They are free, however, from the equally barbarous practice of flattening the head by compression, which is general among the tribes on the Oronoco.

4. *Government.* Since the separation of Venezuela from New Grenada, a new constitution has been adopted, resembling that of the latter.

CHAPTER LX. REPUBLIC OF THE EQUATOR.

PHYSICAL GEOGRAPHY.

1. *Extent and Population.* The Republic of the Equator (Ecuador) is bounded on the N. by New Grenada and Venezuela ; E. by the empire of Brazil ; S. by Peru ; and W. by the Pacific Ocean. It extends from 2° N. to 6° 30′ S. lat., and from 65° to 81° W. long., having an area of 325,000 square miles, with a population of 650,000 souls.

2. *Mountains.* The western part of the State is traversed from south to north by a chain of the *Andes*, forming a double ridge of colossal summits, the valley between which constitutes an elevated table-land, from 25 to 50 miles in width, and from 9,000 to 9,500 feet in height. The principal summits projecting above this great plateau, are *Chimborazo*, 21,730 feet high, *Cayambe Urcu*, 19,600, and the volcanoes of *Antisana*, 19,400, *Cotopaxi*, 19,000, and *Pichincha*, 16,000 feet high. Above the height of 16,750 feet these mountains are covered with perpetual snow. Chimborazo has been ascended to the height of 19,800 feet, probably the highest point on the surface of the globe ever trodden by the foot of man ; the air is here so much rarified that blood issued from the eyes, lips, and gums of the visiters.

3. *Rivers.* The whole of the eastern part of the State is traversed by the great river *Maranon* or *Amazon*, which forms part of the southern boundary of the Republic. It receives the *Napo*, the *Putumayo* or *Ysa*, and the *Tigre* from the north, and the *Huallaga*, the *Ucayali*, and the *Javari*, from the south, within the limits of the Republic. The other most important river is the *Guayaquil*, which is navigable for the largest vessels to the distance of 40 miles from the sea, and empties itself into the fine bay of the same name.

4. *Minerals.* Ecuador is less rich in the precious metals than the neighboring countries. There are, however, mines of gold and silver, and a few are still worked. Lead, quicksilver, and copper, also occur in some places, and in others sulphur is prepared in considerable quantities. Topazes, emeralds, rock crystals, and fine marble are found.

5. *Climate and Face of the Country.* Although this country lies directly under the equator, the great elevation of the central valley, and of the western table-land renders the climate of those sections mild and temperate. In the low country along the coast the heat is excessive, and the climate is dangerous to foreigners. The productions resemble those of New Grenada.

In some parts of the low country the air swarms with mosquitoes and other flies still more tormenting ; the ground teems with snakes, centipedes, and other reptiles, whose bite causes fever and inflammation. There is here a chameleon, whose scratch is believed to be mortal, a belief which seems chimerical, but which greatly harasses the citizens. The ants cannot be prevented from filling even the dishes, and sometimes when a tart is cut up, they are seen running off in all directions leaving the interior void. The shores are crowded with caymans and alligators, whose numbers cannot be kept within any tolerable limits. But the valley and table-land of the interior present a different scene, almost realizing in soil and climate, the fabled glories of the golden age. The climate is an eternal spring, at once benign and equal, and even during the 4 rainy months, the mornings and evenings are clear and beautiful. Vegetation never ceases ; the country is called the evergreen Quito ; the trees and meadows are crowned with a perpetual verdure. The inhabitant of our wintry clime sees with astonishment the plough and the sickle at once in activity ; herbs of the same species, here fading with age, there just beginning to bud ; one flower drooping and its sister unfolding its beauties to the sun. Standing on an eminence, the spectator views the tints of spring, summer, autumn, all blended, while above these verdant hills and flowery vales, rise the lofty cones of the Andes clad in eternal snows, or frowning with naked rocks.

POLITICAL GEOGRAPHY.

1. *Divisions.* The territory of the Republic is divided into 3 departments, which are subdivided into 8 provinces.

Departments.	Capitals.
Equator,	Quito.
Guayaquil,	Guayaquil.
Assuay,	Cuenca.

Earthquake in Quito.

2. *Towns.* *Quito*, the capital of The Equator, is built on an elevated plain, on the eastern slope of the western chain of the Andes, at an elevation of 9,600 feet. At this elevation the climate is such that vegetation never ceases. Around the city are seen 11 colossal summits, covered with perpetual snow, and reaching the height of from 16,000 to 21,000 feet. Several of these are volcanoes, and the city is so often visited by earthquakes, that the buildings are, like those of Bogota, low, but solid. The episcopal palace, the government house, and the cathedral, with numerous convents and churches, are the most remarkable public edifices. The university of Quito has enjoyed great celebrity in South America. The streets of the city are irregular and crooked, and so uneven as not to be adapted to carriages. Population, 70,000. *Guayaquil* is distinguished for the excellence of its harbor, and the extent of its commerce. The government has a navy-yard here, and ship-building is extensively carried on. Population, 22,000. About 170 leagues west of the coast is the fine group of the Galapagos (Tortoise) Islands, deriving their name from the abundance of a gigantic species of land tortoise, which Dr. Harlan has called the *Testudo elephantopus*, or elephant tortoise. The islands enjoy a delightful climate and a fertile soil, and have been occupied by a colony from Guayaquil. *Riobamba*, with 20,000 inhabitants, *Ibarra*, with 10,000, and *Latacunga*, with 17,000, are among the other most important towns. *Cuenca*, situated at an elevation of more than 8,000 feet above the level of the sea, contains a college, a Jesuit's house, and an episcopal palace. The inhabitants are chiefly employed in the manufacture of cotton goods, hats, and confectionary. Population, 20,000.

3. *History, Inhabitants.* This State formerly constituted the Spanish Presidency of Quito, which was dependent upon the viceroyalty of New Grenada. But a small proportion of the inhabitants are whites, the Indians and mixed breeds composing the bulk of the population. The civilized part of the population is confined to the central valley and the western coast, the vast tracts to the east of the mountains being occupied by independent and hostile tribes of savages. The aborigines belonged to the Peruvian family, and numerous remains of their architectural industry and skill are still visible. In 1809 the inhabitants of Quito deposed the Spanish President, and, after a long struggle, the Spanish authority was completely overthrown by the splendid victory of Pichincha in 1822, soon after which Quito was united with Colombia. This union was dissolved in 1830, and Quito formed an independent republic.

CHAPTER LXI. PERU.

PHYSICAL GEOGRAPHY.

1. *Boundaries.* Peru is bounded N. by The Equator; E. by Brazil; S. by Bolivia and the Pacific Ocean, and W. by the Pacific Ocean. It extends from 3° to 22° S. lat, and from 67° to 82° W. long., having an area of 500,000 square miles, with a population of 1,800,000.

2. *Mountains.* Several chains of the Andes traverse Peru from south to north. The principal chain lies nearly parallel to the coast, and contains the loftiest summits, among which is the volcano of Arequipa, 17,750 feet high. Two other chains of less elevation separate the waters of the Tunguragua from those of the Huallaga, and those of the latter from the confluents of the Paro.

3. *Rivers.* The only considerable rivers of Peru are the *Tunguragua*, the *Paro* or *Ucayali*, and some other tributaries of the Amazon, which descend the eastern declivities of the Andes.

Mountains of Peru.

4. *Lake.* *Lake Titicaca*, the largest lake in South America, is 240 miles in circuit, and 400 feet deep. Its waters are fresh, and it is remarkable for the great elevation of its bed, which is about 13,500 feet above the sea.

5. *Coast.* The nature of the coast on the Pacific Ocean is by no means favorable to navigation, and affords no harbor except Callao, which admits the larger merchant vessels. There is also on every part of the shore such a tremendous surf, caused by the uninterrupted swell from the sea, that no communication can be had with the land by boats of the common construction. The natives, however, have a contrivance called *balsa*, consisting of 2 seal skins, lashed together and covered with a sort of platform, on which sits the pilot of this strange craft. Being blown up by the breath of the navigator, these balsas are so buoyant, as to pass the most terrific breakers in safety.

6. *Face of the Country.* Peru consists of 3 distinct regions, differing in regard to surface, soil, and climate. Between the mountains and the sea, a narrow strip of sandy plain extends along the whole coast, with extensive intervals in which no traces of vegetation appear. In this sterile tract, varying in breadth from 30 to 100 miles, no rain ever falls, but the dews are heavy and uniform ; thunder and lightning are unknown, and there is little variation of temperature, the heat being constant, but seldom intense. Here are produced the tropical plants, sugar-cane, cocoa, plantains, coffee, &c. The next division is the mountainous region, which, commencing at the termination of the sandy district with hills of moderate elevation, rises gradually to the loftiest summits. Here, as in Mexico and New Grenada, the traveler ascends through successive layers of climate, from regions of perpetual summer to those of eternal snows. The valleys and sides of the mountains are covered with impenetrable forests of gigantic trees, overrun with luxuriant creeping or parasitical plants. This region spreads out into an extensive table-land, which, stretching far to the east and south, has an elevation of from 4,000 to 9,000 feet. Much of the soil in this region is fertile, and the climate of the table-land is mild and temperate. To the east of the mountains, in the northeastern part, begins the great plain of the Amazon, in which the heat is excessive and the climate moist and unhealthy. Like the llanos of Venezuela, this great level is intersected by forests along the banks of the rivers, which break up its surface into separate grassy plains, here called pampas.

7. *Vegetable Productions.* Cotton is found in great abundance, in a wild state, in the Montana Real, on the Guallaga, and on the banks of the Maranon. Flax is common, but the Indians leave the stems to perish, and make a kind of beer of the seeds. In the southern parts, the cacao tree is very abundant. A species of cochineal, and coffee of an indifferent quality, abound in some districts. The Peruvian pimento is excessively strong, and there is some cinnamon stronger than that of Ceylon, though not so valuable. Many herbs, and a great variety of aromatic balsams, oils, and gums distilled from the trees are produced here. In the description of Peru, Estalla enumerates the cedar, the olive, the wild orange, the incorruptible *algorob*, the palm, the willow, and many other trees. On the coast and western slopes of the Andes, are produced the cabbage-palm, the cocoa-nut, the chocolate-nut, the cotton-shrub, the pine-apple, turmeric, plantain and sugar-cane. The large flowered jessamine, and *datura arborea* diffuse their evening fragrance round the vicinity of Lima, and form beautiful ornaments when braided in the hair of the women. No less than 24 species of pepper, and 5 or 6 of capsicum are considered natives of Peru. Tobacco and jalap abound in the groves at the foot of the Andes. Immense forests of acacias and mangoes, brooms and ferns in prodigious variety, tall aloes and other succulent plants, clothe the maritime plains and those on the east of the Andes. The *ferula*, or gigantic fennel, grows to a surprising size. The chief shrubs on the uplands of the Andes are the different species of *cinchonas*, or the salutary Peruvian bark. The *caoutchouc*, or common elastic gum, is procurred from the inspissated juice of a variety of different vegetables.

8. *Minerals.* The mountains of Peru abound in metallic wealth. They are interspersed

with veins of gold, and with veins of silver ore, in which pieces of pure silver, solid copper, and lead ore occur, frequently intermixed with white silver ore, and virgin silver in threads. In many parts are rich veins of gold ore in quartz, and gold is also obtained by washing the mud found in the beds of the rivers. The ores are extremely rich, yielding from 5 to 50 pounds of silver for every hundred weight of ore. A large number of the silver mines are neglected. This is owing to their being inundated by water, which has gradually gained on them, so as to completely choke them. The Peruvian gold partly comes from the districts of Pataz and Huailas, where it is extracted from veins of quartz traversing primitive rocks, and partly from *lavaderos*, or washing grounds, established on the banks of the Maranon, in the district of Chachapoyas. Nearly the whole silver is extracted from the great mines of *Lauricocha*, (commonly called the mines of Pasco and Cerro de Bombon,) *Gualgayoc* or *Chota* and *Huantajaya.*

The mines of Lauricocha were discovered in 1630, by an Indian shepherd ; and though very badly wrought, they annually furnish near 2,500,000 dollars. The mines of Gualgayoc were only discovered in 1771, by an European Spaniard. From 1774 to 1802 they furnished the provincial treasury with an annual income of about 130,000 pounds sterling. The mines of Huantajaya, surrounded with beds of rock-salt, are celebrated for the great masses of native silver which they contain. The value of the annual produce of these mines is from 595,000 to 680,000 dollars. These mines are near the shore, in the district of Arica. In 1758 and 1789, 2 masses of native silver were found in 2 of its mines, the one weighing 800 pounds and the other 200 pounds. Humboldt calculates the mean produce of the gold and silver at 6,000,000 dollars annually. He however adopts 5,300,000 as the mean annual term of registered gold and silver in Peru ; a sum which does not amount to one-fourth of the mineral produce of Mexico, the annual average of which is 23,000,000 dollars. To this sum of Peruvian gold and silver must be added the fraudulent exportation of the silver, or what is denominated unregistered produce, on which no duty has been paid. This was estimated at 940,000 dollars ; making the whole amount of gold and silver, registered and smuggled, 6,240,000 dollars.*

Peru is the only part of Spanish America where mercury is found in considerable abundance ; and here it is met with in various districts. The famous mercury mine of Guancavelica is situated in the mountain of Santa Barbara. The bottom of this mine is 13,805 feet above the level of the sea ; so that the miners work in a point 1,640 feet higher than the summit of the peak of Teneriffe. The mercury in the environs of Guancavelica, is found in two different forms, in beds and in veins. The great mine is divided into 3 stories, and it is estimated that 50 quintals of tolerably rich mineral yield, by distillation, from 18 to 12 pounds of mercury. For the last 16 years, the metalliferous bed of the great mine of Santa Barbara has been completely abandoned, owing to the falling in of the uppermost of the 3 stories of the mine. The other minerals are numerous. White granite, basalt of a brown color, in beautiful square columns, and rock salt of various colors, are found in several parts of the country. What is denominated the stone of the Incas, is found in different parts of the Andes, being a compact marcasite, capable of a high polish.

There are many obstacles to successful mining in Peru. One great obstruction is the ignorance of the miners in the science of amalgamation. Another, is the comparative want of capital ; the speculator being generally a person in necessitous circumstances, who is obliged to borrow money on very exorbitant interest, to enable him to commence his works, and to sell the produce of his mines at a great loss, in order to carry them on. The labor of the mines is chiefly carried on by the Mestizoes and Indians, as they only are able to stand the fatigue and unwholesomeness of the employment.

POLITICAL GEOGRAPHY.

1. *Divisions.* Peru is now divided into 7 intendencies : Lima, Tarma, Arequipa, Cuzco, Guamanga, Truxillo, and Guancavelica.

2. *Cities.* *Lima*, the capital of Peru, situated in the valley of Rimac, was founded by Pizarro, in 1534, and by him denominated *Los Reyes*, or the City of the Kings. Its situation is

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* The mining district of Puno, on the western borders of the Titicaca lake, seems to have escaped the notice of the indefatigable Humboldt. The mines in this region were once astonishingly productive, and though abandoned since the commencement of the present century, are considered among the most valuable in Peru, and as possessing a combination of advantages rarely to be found in mining speculations. In its geological disposition and metallic minerals, this district presents a great resemblance to the rich mines of Mexico

pleasant, and, considering the latitude, its temperature is cool. The river which crosses the city is pure and transparent, watering the whole valley. It is 4 miles long by 2 broad, and is surrounded by brick walls with ramparts and bastions. The streets are handsome and straight, but the houses, which are built chiefly of wood, are generally only one story high, on account of the frequent earthquakes to which they are exposed. Like all the other Spanish cities, Lima has a great square in the centre, where all the principal streets terminate, and where stands the vice-regal and archiepiscopal palaces, the cathedral, the university, the treasury, the arsenal, and the town hall. Trees are planted all round the houses. The churches and convents are extremely rich. The population of Lima is estimated at 80,000; of which number, above 20,000 are whites. This city is visited by frequent and tremendous earthquakes, which occasion great destruction to property and life. The last was in 1828, and though only of 30 or 40 seconds duration, it destroyed and injured houses and public edifices to the amount of 6,000,000 of dollars. About 30 persons perished. Its port, *Callao*, the strongest fortress and principal seaport of Peru, contains 3,000 inhabitants. It is connected with Lima by a magnificent road.

Cuzco may be considered as the inland capital of Peru. It is a very ancient city, and boasts of having had its origin from the first of the Incas. Situated amid the Andes, on the skirts of various mountains, it is watered by the little river Guatenay. In size it is nearly equal to Lima, and it has a population of more than 40,000 souls. It has a college; a nunnery on a spot where the virgins of the sun formerly lived; and a large, rich, and handsome cathedral. The houses are mostly built of stone, and covered with very red tiles. Cuzco was regarded by the natives as a sacred city, and the celebrated temple of the sun, with its gorgeous decorations of gold and silver, was one of the richest in the world. Two immense causeways, 1,500 miles in length, led from the city to Quito, and their remains still exist. *Huamanga*, a commercial and manufacturing city, with 25,000 inhabitants, and *Huancavelica*, with a population of 12,000, near which are the rich quicksilver mines, now obstructed by rubbish, are the principal places in the department of Ayacucho, which derives its name from a little village, where the Spanish forces were defeated by the Colombian general Sucre, in 1824.

Arequipa is a maritime city, which has been 6 times destroyed, and as often rebuilt; and yet, previous to the late revolution, it was said to contain 40,000 inhabitants. The cause of its misfortunes is its vicinity to the vast volcano Omati, a central peak of a whole group of volcanoes.

Among the other towns worthy of note, are ***Piura***, with 7,000 inhabitants; *Truxillo*, which has suffered much from earthquakes, and has now a population of about 5,800; *Ica*, or *Valverde*, with 6,000 inhabitants, and trading in glass, wine, and brandy; *Gumalies*, where there are manufactures of serges, baizes, and other stuffs, and also a silver mine; *Puno* and *Tarma*.

3. *Agriculture.* Generally speaking, agriculture is in a wretched state. So languid and backward is it on the coast, that Lima and many other towns along shore depend on Chili for their provisions. This has been ever since the great earthquake of 1793, which was followed by such sterility of the valleys of Lower Peru, that the people in many places ceased to cultivate them. The country has since in a measure recovered its fertility; but till some alteration is made in the mode of cultivation, and greater facilities of communication between the interior and coast are introduced, there is no hope of any great progress in agriculture.

4. *Commerce.* Peru trades with Europe, the East Indies, coastwise with Mexico, Guatemala, and Chili, and over land with the provinces of Rio de la Plata, including Buenos Ayres, &c. Its exports are chiefly gold and silver, wine and brandy, sugar, jesuit's bark, salt, the fine wool of the *vicunna*, or sheep of the Andes, which is made into beautiful shawls, coarse woollens, and other manufactures of little value. It receives in return, European goods, live stock, provisions, tallow, cacao, Paraguay tea, coca leaf, indigo, timber, cordage, pitch, copper, and iron. Its commerce ranges under three heads: that by land, with the Rio de la Plata provinces; that by sea, with the other colonies; and that with Europe.

The official accounts of the Peruvian commerce for 1825, valued the total importations of that year at 15,541,750 francs. Owing to the diversity of the climate in the vice-royalty of Peru, all kinds of European manufactured goods find a ready sale. Those from England are mostly preferred to any other.

5. *Inhabitants*, &c. The Peruvians, like the other people of South America, are composed of various races, the most numerous being the Creoles, of European descent, and the Indians. The Indians are broken and debased, and seldom cheerful. There are many tribes. The Carapachas are said by Girval to rival the Circassians in beauty; but from the guttural

sounds, their speech is like the barking of dogs. The women of some tribes are said to be warlike. The Omaguas flatten the head, like some of the North American Indians. The Indians occupy the same place in society as in Mexico. They are idle, filthy, superstitious, and suspicious. Their dress and habitations are mean. Their capacities are very limited, and they have little variety of character. They are governed by native chiefs or caziques, and many laws are devised for their protection, which are not always executed. The gentlemen of Peru imitate the English fashions of dress; and the ladies also, except in a peculiar walking-dress, composed of a close petticoat of satin, &c., with a short cloak of silk drawn round the waist and over the breast and head, half concealing the face. This is peculiar to Lima. The petticoat is elastic, and sets close enough to reveal the form. The hood, or manto, is probably a Moorish remnant. In the cities of Peru, the houses are low, and built thus from a fear of earthquakes. The dwellings of the Indians are mere huts, and generally architecture is in a much lower state than in Mexico. The roofs are flat, and the walls are often of wattled cane, plastered. The languages are the Spanish and those of the Indians. The food does not essentially differ from that in the other South American States; and tobacco is as extensively used as in the rest of South America. Many sweetmeats are consumed. A fermented liquor, called *chica*, is made of maize. The diseases are not peculiar. There are some goitres in the mountainous regions, but the Indians are exempted from them. To travel in Peru is a service of hardship and privation. The general way is to ride on horses or mules. There are few roads. The mule is invaluable from its cautious instinct, in passing the defiles or sides of the mountains, where a misstep would cast them to a measureless distance below. In many places, where they cannot step, they protrude their feet and slide downwards, directing their course with the utmost sagacity. It is not safe for the rider to assume any guidance over them, when he is riding with one leg over a precipice while the other rubs against the side of a mountain. The lama is much used for carrying burdens. The Peruvians do not differ in character from the other South Americans. Hospitality with them has no limits, and, like the others of European descent in South America, they are distinguished for their paternal and filial virtues. The creole ladies are good mothers and wives, and almost every family is a happy circle. Dancing, music, tertulias, bull-fights, and cock-fighting are the common amusements. The negro slaves receive kind treatment, and are instructed in the Christian religion. It is common to see the white children thus instructing those of a household.

Natives of South America.

Spanish Inhabitants of Peru.

South American Travelers.

Peru was one of the two monarchies of America, which, at the invasion of the Spaniards, had attained to a degree of refinement far above that savage state in which most of the American Indians lived. It was also remarkable, from the contrast of the character of its civilization to that of the Mexicans. Instead of the fierce and lofty spirit, the bloody wars, the uncouth deities, and ferocious rites of the latter, the Peruvians or Quichuas were united in tranquil subjection to a mild superstition, which represented their inca as the child of the sun, to whom unreserved submission was due. However fable may have been mixed with truth in the tale of Manco Capac and his wife Mama Ocello, the story of the greatness of the Peruvian empire has nothing fabulous. It comprehended not only the vast region now called Peru, but the territory of Quito or Ecuador, which is covered with the monuments of the Incas. Order was established in this vast region ; the land was carefully cultivated ; the rivers were carefully employed in irrigating the soil ; mountains were formed into terraces to receive the canals constructed for this purpose, and walls were built to prevent the water from escaping ; so that large tracts, which have now relapsed into deserts, were rendered productive. The great road from Quito to Cuzco, 1,500 miles long, though not fitted for wheel carriages, which were unknown to the Peruvians, was yet a wonderful work, on account of the natural obstacles that were overcome, and the flying bridges that were thrown over the deep ravines. Their structures were composed of immense blocks of stone, enclosing vast spaces, and divided into an infinity of apartments, so that one near Caxamarca is said to be capable of containing 5,000 men. The Peruvians had nothing like the Mexican hieroglyphics, but in their *quipos* or strings, the colors represented objects and the knots their numbers, and, by this contrivance, they were able to preserve a record of events. On the death of one of their Incas, or of any great chief, many of his vassals, and portions of his treasure, were buried with him, and the opening of these *huacas* or tombs has often proved a prize to some European adventurers.

The descendants of the subjects of the Incas are still the most numerous class in Peru. They have small features, little feet, sleek, coarse, black hair, and scarcely any beard. They have been represented as sunk in apathy and insensibility, but the shy, reserved, and gloomy, though tame aspect which they present, is the fruit of long oppression and accumulated wrongs. They are patient and industrious cultivators, and often manufacture very beautiful fabrics from very simple materials ; but they are apt to indulge in deep potations of *chica*, a national liquor, made from maize. They still retain the deepest and most mournful recollections of the Inca, and celebrate his death by a sort of rude drama, accompanied by the most melting strains of music. Yet they are nominally converted to Christianity ; that is, they celebrate the festivals of the church, by dancing through the streets with bells fastened to their legs, and drinking enormous quantities of chica.

Education is little attended to ; but more than under the old government. The ruling religion is the Roman Catholic. Besides the curates, there are many missionaries among the Indians. These were formerly Jesuits, but they are now Franciscans.

6. *Government.* The government is republican, and the form very similar to that of the United States. Since the revolt of the country from Spain the government has undergone many changes.

7. *History.* This country was conquered from the Incas, or aboriginal sovereigns, in the 16th century, by the Spaniards, under Pizarro and Almagro. It remained in subjection to Spain for some time after the revolt of the other South American provinces. The independence of the country was declared in 1821.

CHAPTER LXII. BOLIVIA.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* Bolivia lies between 11° and 25° S. latitude, and between 58° and 70° W. longitude. It is bounded on the N. and W. by Peru ; on the S. W. by the Pacific ; on the S. by Chili and Buenos Ayres ; and on the E. and N. E. by Brazil. Its length from N. N. E. to S. S. W. is about 1,140 miles. Area, 410,000 square miles.

2. *Mountains.* The great chain of the *Andes* divides itself between the 14th and 20th degree of south latitude, into two longitudinal branches, which are separated from each other by a great valley, or plateau, 13,032 feet above the level of the sea, and whose northern extremity comprises the lake of Titicaca. The western chain separates the bed of that lake and the valley of Desaguadero from the coast of the South Sea, and presents a great number of active volcanoes. The eastern chain separates the plateau from the immense plain of Chiquitos and the Moxos. Many of its peaks surpass 20,000 feet in height. The summits of *Sorata* and *Ilimani*, covered with eternal snow, surpass all the gigantic peaks of Ecuador. The Sorata

is in the northern part of the eastern chain, and rises from the centre of a group of nevados, or snowy peaks, in 15° 30′ south latitude. Its height has been found to be 25,400 feet. The majestic summit of Ilimani is situated in the Bolivian provinces of La Paz, and is the most southern snowy summit of the eastern branch of the Andes, to which it belongs. It has 4 peaks on its summit, arranged nearly from north to south. The most northerly of these peaks has been found to be at an elevation of 24,200 feet above the level of the sea. Between the parallel of the Ilimani and the 21st degree of south latitude, the eastern *Cordilleras* do not present a single summit which enters the limits of perpetual snow, though several rise to 16,000 feet.

3. ***Rivers.*** The southwest extremity of Bolivia is watered only by small rivers, among which is the ***Loa.*** The ***Desaguadero***, the outlet of the lake of Titicaca, loses itself in the sands. Of the other rivers we need only mention the ***Mamore*** and ***Guapore***, heads of the ***Madeira***, the ***Pilcomayo***, the ***Apurimac***, the ***Beni***, and the ***Paraguay.***

4. *Lakes.* The lake of *Titicaca* is situated in the high upland tract that lies between the 2 ranges of the Andes, and is elevated several thousand feet above the level of the sea. Its form is very irregular. Its greatest length from northwest to southeast is 160 miles, while its general breadth is hardly one third as much. It is navigated by the largest ships, but is subject to tremendous storms and gusts of wind. 10 or 12 large rivers, and a number of small streams fall into it. It has no visible outlet. Its water is turbid and disagreeable, but abounds in fish. The shores of the lake are populous, being thickly planted with villages. There are several islands in the lake, on the largest of which the Incas formerly had a magnificent temple dedicated to the sun. The Indians have floating villages here, upon *balzas*, or rafts, in which they pass from place to place.

5. *Climate.* The diversity of climates in this country is very great, owing to the inequality of the surface. The temperature of the western mountains and campos is very low ; epidemic fevers are common in the northern districts.

6. *Soil and Productions.* The central portion of this country possesses the greatest agricultural capabilities ; its soil and productions are similar to those of Peru.

7. *Mines.* The famous mine of Potosi now belongs to this State. The mountain in which it is situated is called *Hatim Potosci*, or " Father mountain." This mountain is of a conical shape, 20 British miles in circumference, and 4,475 feet in height, above the surrounding country. The mountain of Potosi principally consists of a yellow and very firm argillaceous schist, full of veins of ferruginous quartz, in which silver ore, and sometimes brittle vitreous ore are found interspersed. There is also a grayish brown ore in which appear some small grains and thin branches or veins of silver running along the layer of stone. This latter ore is very rich, yielding from 18 to 20 marks per *caxon* of 5,000 lbs. weight.

This wonderful mine was discovered in 1545, by a Peruvian named Hualpu, who, in pursuing some goats, among the rocks, in his ascent, grasped a bush, whose roots giving way, disclosed to his view an immense vein of silver, which since his time has been denominated " *La Rica*," or " The Rich." For some time Hualpu concealed the discovery from all his friends, and only resorted to this treasure to supply his occasional wants. The obvious change in his fortune, however, had excited the suspicions of one of his Indian friends, who, with difficulty, wrung from him the valuable secret ; but who, soon after, upon some quarrel with Hualpu, revealed it to his master, a Spaniard. No sooner was it made known, than the mine was opened ; and it was formally registered on the 21st of April, 1545. Since that time it has been constantly wrought. The mountain is now almost entirely excavated, and is perforated with more than 300 pits, few of which, however, are more than 70 yards deep. It is now opened at the base, and vaults, dug horizontally, penetrate into its interior, and meet the veins of silver. In these vaults the air is cold and unwholesome ; and there the Indians, to the number of 2,000, work alternately day and night, for the small wages of 2*s.* daily, deprived of the light and heat of the sun, and entirely naked, to prevent them from embezzling any of the ore. On the first discovery of the mine of Potosi, the metal was much finer than at present. It is the abundance of the ore alone which renders it worth working. What quantity of silver has been extracted from Potosi from 1545 to the beginning of the present century, it is impossible precisely to determine. Various estimates have been given by different authors of acknowledged celebrity. The table in the note is according to the most accurate computations.*

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* " The most flourishing period of the mines of Potosi, during the period from 1556 to 1789, was that from 1585 to 1606 For several successive years, the royal 5th amounted to $1,500,000, which supposes a produce of 1,490,000 or 882,000 marks, according as we estimate the piastre at 13½ or 8 reals, equivalent to 12,665,000, or 7,497,000

8. *Face of the Country.* The surface of Bolivia is unequal, now rising into chains of stupendous mountains, now stretching into immense plains. It is generally elevated.

POLITICAL GEOGRAPHY

1. *Divisions.* Bolivia is divided into 7 departments, viz: Chuquisaca, Oruro, Cochabamba, Santa Cruz de la Sierra, La Paz, Tarija, and Potosi.

2. *Towns.* *Chuquisaca* is the capital of the State. It is also called La Plata, and was formerly the capital of Charcas, an extensive province comprehending all the southeastern part of Peru. It is a neat, cheerful, and respectable place, though not very populous. ***Potosi***, once the most populous and extensive of all the cities of South America, is situated at the base of the celebrated mountain from which it takes its name. With its suburbs it once covered a vast extent of ground; but these suburbs are now in ruins, and the whole population is reduced to 12,000. It stands in a bleak, barren, and very mountainous district of the eastern chain of the Andes, in a glen watered by a branch of the Pilcomayo. The country around is barren beyond description, but the abundance of metallic produce in the vicinity amply compensates for the poverty of the soil. Provisions of all kinds are brought from a distance on mules and asses, to supply the wants of the population.

The climate of Potosi is very variable. Early in the morning it is cold and piercing; from noon to 3 o'clock the sun is exceedingly hot, while in the shade it is very cold; the evenings are serene, and sometimes of a summer mildness. In the opinion of Temple and other travelers, the climate is fine, wholesome, and bracing. For 5 days out of 6, Potosi enjoys a fine, brilliant, unclouded atmosphere, a spotless canopy of the deepest and purest azure; and so dry is the atmosphere, that, in pulling off a flannel waistcoat or worsted stockings in the dark, sparks are distinctly seen. Snow and thunder storms are frequent, and the latter are sublime and terrific. As this city may be said literally to be above the clouds, the blue lightnings dart round in ten thousand dazzling flashes, and lose themselves in the ground; whilst the thunders roll from mountain to mountain in long continued peals, absolutely stunning to the senses, and baffling the powers of description. Dark clouds of the blackest hue, with brilliant mixtures of blue and green, beautify the scene of awful magnificence, whilst the storm rages and blazes in the valley beneath. The mountain itself rises above the town like a colossal sugar-loaf, of a reddish-brown color, to the height of 2,370 feet. Though half an hour's walk distant, it seems so near that, were it to fall over, to all appearance it would overwhelm the city.

Potosi at first sight appears very clean and handsome, as the outsides of all the houses are whitewashed. This, however, is mere deception, for with a few exceptions, their interior is very filthy. The Indians are well called *swinish*, and their superiors are not much better. The churches, once exceedingly rich, are now plundered, dismantled, and deserted. The Mint, an uncouth pile erected in 1562, at the expense of 2,000,000 of dollars, still remains. On one side of the ***Plaza Mayor***, or great square, is the government house, a long, low range of buildings, and on the other stands a prodigious mass of gray granite, intended for the cathedral, but not yet finished. In the middle is a pile which Temple supposed to be a shot-manufactory, but which proved to be a national monument in honor of Bolivar. At the distance of

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dollars. After 1606, the produce gradually diminished, especially since 1694. From 1606 to 1688, its annual produce was never below 350,000 marks, or 3,015,000 dollars. During the latter half of the 18th century, it generally supplied from 300,000 to 400,000 marks; a yearly produce this, too considerable to allow us to advance, with Robertson, that these mines are no longer worth working. They are not, indeed, the first in the known world, but they may still be ranked immediately after those of Guanaxuato, in Mexico. That they do not yield so much as formerly, is not at all owing to their exhaustion, but to the ignorance of the Spanish miners, by whose unskilful management most of the pits are allowed to remain full of water. Steam engines, the powers of which are so well understood in this country, are here wholly unknown. In the opinion of Helms, the mines of Potosi might easily be made, with moderate skill and management, to yield 20,000,000, or even 30,000,000 dollars annually. In addition to 2,000 Indians employed as miners, there are 15,000 glamas, and 15,000 mules, employed in carrying the ore from the mountain of Potosi to the amalgamation works. The following table will show the produce, registered and unregistered, of the mines of Potosi, down to 1803:

Years.	Marks.	Dollars.
From 1545 to 1556 - -	15,000,000	127,500,000
" 1556 to 1578 - -	5,765,827	49,009,530
" 1578 to 1736 - -	71,818,686	610,458,835
" 1736 to 1789 - -	15,074,044	128,129,374
" 1789 to 1803 - -	5,411,764	46,000,000
Total in 258 years - -	113,070,321	961,097,739
Allowance of the value of the piaster before 1600 - -	26,351,765	220,000,000
Add one fourth of the above total registered produce for contraband - - -	34,738,110	295,274,435
Total of registered and unregistered produce extracted from the mines of Potosi, from 1545 to 1803 -	174,160,196	1,476,372,174."

—*Bell*

8 or 10 miles, are the lagunas, or ponds for supplying the Ingenios and the towns with water. They are 37 in number, and were constructed 200 years since, at an enormous and needless expense. There is a considerable consumption of French and English manufactures in Potosi.

La Paz is a bishop's see, containing, besides the cathedral, 4 churches, 5 convents, and 3 nunneries. In respect of situation, this place is one of the most remarkable in all South America. It lies in a ravine, so deep, narrow, and steep, that it is quite concealed from the view of the traveler, till he suddenly arrives at the very brink of this quebrada. Suppose yourself, says Temple, traveling leisurely along a high table, or any other place you may like better. This is bounded by a huge mountainous rampart, in which, be it remembered, is one of the greatest, grandest mountains on the globe, and far surpassing those wonders of the world chronicled by fame. Ilimani, the giant of the Cordilleras de los Andes, cannot be considered in any less character. These mountains appear to rise out of the plain on which you are riding, and your expectation is that you must actually arrive at them, for no obstacle is to be seen betwixt you and them. Whilst you are musing on the *how* and *when* your journey is to end, you arrive unexpectedly at the edge of the plain, and behold a vast gulf at your feet, in the bottom of which appears a town, very regularly built with packs of cards. The *coup d'œil* of La Paz conveys precisely this idea, the red-tiled roofs and white fronts of the houses answering admirably for hearts and diamonds, whilst the smoked roofs and dingy-mud walls of the Indian ranchos answer equally well for spades and clubs. Through this fairy town may be faintly seen, winding with occasional interruptions, a silver thread, marked with specks of frothy white, which, upon approaching, proves to be a mountain torrent, leaping from rock to rock, and sweeping through the valley. In casting an eye further round, you perceive squares and patches of every shade of green and yellow ; fruit, and vegetables, and crops of every kind in all their stages, from the act of sowing to that of gathering in, trees bearing fruit, and at the same time putting forth buds and blossoms, and the whole scene teeming with luxuriance and beauty. Yet on raising the eyes from the lap of this fruitful Eden, they rest on the widest contrast in the realms of nature. Naked and arid rocks rise in mural precipices around ; high above these, mountains beaten by furious tempests, frown in all the bleakness of sterility ; higher still, the tops of others, reposing in the regions of eternal snow, glisten with undiminished splendor in the presence of a tropical sun. After a descent of 3 miles, you reach the bottom of the ravine ; and instead of finding La Paz built on a flat, as you supposed from the summit overhanging the abyss, you find it really built on hills, with some of its streets extremely steep The torrent which waters the ravine is a head branch of the mighty Beni, or main stream of the Maranon ; and in falls of rain forces along huge masses of rock, with large grains of gold. It is the great emporium of Peru, as all the merchandise from the Pacific is conveyed thither. then carried off by merchants, great and small, to the towns and villages of the interior. According to Helms, La Paz contains above 20,000 inhabitants, and is distant 350 miles by the road from Potosi.

Oropeza, or *Cochabamba* is the capital of the rich and fertile district of Cochabamba, and is so called from the gold found in its vicinity. It lies in a fertile valley, near the source of the Rio Grande, the head branch of the Madeira. The district being the very granary of Bolivia, this city drives a great trade in grain, fruits, and vegetables, and contains 30,000 inhabitants, among which are many rich and noble families.

Oruro was once a place of note, with 8,000 inhabitants, but now reduced to less than one half from the destruction of the tin and silver mines in its vicinity, which formerly supported a brisk and extensive commerce, but now nearly extinct from want of those resources which were absorbed in the all-consuming evils of civil war. The tin mines were long famous, and those of silver were once among the most productive in Peru. But, of late years, being abandoned, they have filled with water, which they have neither machinery to employ, nor money for applying any other method to carry it off. Here were many families of enormous wealth. Rodriguez, the late head of one of these, was proprietor of a famous silver mine in the vicinity, so productive, that he discarded from his house all articles of glass, delft or crockery ware, and replaced them by others made from the silver of his mine. Utensils of the most common use, as well as those of luxury and ornament, such as pier tables in the principal apartments, frames of pictures and of mirrors, footstools, pots, and pans, were all of silver. Said a native to Temple, who was there in 1827, " Do you see that trough in the court-yard ? " (pointing to a very large stone trough for watering mules and other animals),— "I do assure you, that Rodriguez had 2 of much larger size for the same purpose, of pure and solid silver ;

and before the revolution, there were 3 or 4 houses in Oruro, that could boast of having quite as much." Oruro is 180 miles north of Potosi, in a barren and level plain, bounded west by the snow-covered Andes.

Sicasica is 63 miles north of Oruro, and is a neat, respectable town, capital of a large district of the same name, once containing about 4,000 inhabitants, but now not as many hundreds, being ruined by the revolution. In its vicinity are several silver mines, which have been worked, and still may be worked, to great advantage. Flocks and herds, which before the revolution grazed in the valleys and sides of the mountains, have disappeared, and desolation and poverty are everywhere manifest. It stands near the sources of the Beni.

Tupisa is a little town on the road from Potosi to Buenos Ayres, where a traveler can supply himself with everything he requires, and is also the southern frontier of the Bolivian republic, where duties are levied on goods and the baggage of travelers is inspected. It is situated 150 miles to the south of Potosi, at the base of the lateral ridge of the Andes.

3. *Commerce.* The most important commerce of Bolivia consists in the export of grain to Peru ; but the roads are bad, and communication is therefore greatly impeded. The only port of Bolivia is the small harbor of ***Cobija*** or ***Lamer***, on the Pacific.

4. ***Inhabitants.*** The inhabitants are similar to those of the other States. Provisions are cheap and abundant. The potato is in general use, as in Peru. It is the principal food of the Indians, though they mix it with milk, and other things. There are vineyards which produce good wines. There is little society in the towns. There is such a similarity of character and customs with those of Peru, that it is unnecessary to describe them. The people are extremely hospitable. The traveler arrives at a house and says to the master, "With your permission I will lodge with you." At Potosi the carnival is a season of rejoicing. The morning dress of the ladies is represented as shabby and heterogeneous ; but the evening dress is worthy the almeda of any Spanish city. The religion is the Roman Catholic.

Inhabiants of Bolivia.

5. *History ; Government.* The Bolivian territories, or, as they are commonly called, the provinces of Upper Peru, were detached from the Spanish vice-royalty of Peru, and annexed to that of the Plata, in 1778. In 1824 the Spanish authority was overthrown by the victory of Ayacucho, and in the succeeding year the people of Upper Peru determined to remain a separate State, under the name of Bolivia. The constitution of government is republican.

CHAPTER LXIII. CHILI.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* Chili is bounded N. by Bolivia ; E. by Buenos Ayres and Patagonia ; S. by Patagonia, and W. by the Pacific. It lies between longitude 69° and 74° ; and latitude 24° and 45°. It is 1,260 miles long, and 300 wide, and has an area of 175,000 square miles.

2. *Mountains.* The great chain of the *Andes* traverses the country from north to south, and presents a number of summits, the height of which has been estimated at upwards of 20,000 feet. The roads that lead across these mountains are impassable except in summer, and the passage is even then so difficult and hazardous, that a horseman can scarcely accomplish it. The melting of the snow in these high regions forms innumerable torrents, which quickly accumulate and dash along the glen and precipices till they break out and extend over the plains. Among the Chilian Andes there are said to be 14 volcanoes, in a state of constant eruption, and a still greater number, that discharge smoke at intervals. Earthquakes are common in the vicinity of these mountains.

3. *Rivers*. The rivers are numerous, but small, and have generally rapid currents. Some of the principal ones are the *Maule*, the *Biobio*, the *Cauten*, the *Tolten*, the *Valdivia*, the *Chaivin*, the *Bueno*, and the *Sinfondo*.

4. *Lakes*. The principal lakes are those of *Tagatagua* and *Taren*; beside which there are some salt-water lakes that have a communication with the sea for a part of the year. In stormy weather the sea forces a way through them, and leaves them full of fish; but in the hot season the water congeals, leaving a crust of fine white salt a foot thick.

Alexander Selkirk, on the Island of Juan Fernandez.

5. *Islands*. There are 47 islands in the archipelago of Chiloe, at the southern extremity of Chili, 32 of which are inhabited. The island of *Chiloe*, which gives its name to the group, is 140 miles long, and about 60 broad. Much ambergris is found here. The islands of *Juan Fernandez* have been used by the Chilian government as a place for the exportation of criminals. The group consists of 2 islands, called *Mas a Tierra*, the largest and most important, and *Mas a Fuero*. It has derived celebrity from its having been the solitary residence of Alexander Selkirk, a Scotch sailor, whose adventures suggested the favorite romance of Robinson Crusoe.

6. *Climate*. A striking difference exists in the climate on the east and west sides of the Andes, for there the dry and rainy seasons occur at opposite periods. In Chili winter is the rainy season, while on the other side of the Andes it is the period of their finest weather, and the atmosphere scarcely presents a cloud. In the northern provinces, however, rain seldom falls, but its deficiency is supplied by the dews, which are very heavy during spring, summer, and autumn. Snow falls abundantly on the Andes, but is never seen on the coast. Chili is perhaps blessed with the most salubrious and delightful climate on the globe.

7. *Soil and Natural Productions*. There are some sterile tracts, but in general the soil is remarkably fruitful, and the products are rich and varied. The maritime tracts are less productive than the midland, and those again yield to the valleys of the Andes. Numerous plants are peculiar to the country. The uncultivated parts present the utmost profusion of vegetable riches. The plains, valleys, and mountains are covered with a variety of beautiful trees, many of which preserve their foliage throughout the year. Medicinal, dyeing, and aromatic plants also abound; and the fruits introduced by Europeans, grow in greater perfection than in their native soil.

8. *Minerals*. Chili abounds in all kinds of metals. Gold, silver, copper, and quicksilver, are those that are wrought. Gold is the most copious, and in some districts there is scarcely a hill which does not contain it. It is also washed down by the mountain streams. The silver mines are found in the higher regions of the Andes, and the great expense of working them in these bleak and barren climes, has caused several to be abandoned. The richest silver mine is that which extends to the plain of Uspallata; the vein, it is said, has been traced to the extraordinary length of 90 miles. The number of copper mines is very great, as between the cities of Coquimbo and Copiapo more than 1,000 have been opened, but those only are worked in which the ore is so rich as to yield half its weight in pure metal. All the lead contains a certain proportion of silver, but it is too small to excite the attention of the miners, in a country where that metal is so abundant. Precious stones are occasionally found, and fine quarries of marble are very common.

9. *Animals*. This country is free from dangerous or venomous animals, which are so much dreaded in hot countries, and has but one species of small serpent, and that perfectly harmless. The lama and the vicuna are found in the Andes. The wild-dog, the goat, and the fox, with

the American lion, are sometimes seen. All the domestic animals introduced from Europe have multiplied greatly. The horses of Chili are excellent; and those bred on the plains resemble the Arabian stock. Birds are exceedingly numerous. The coasts abound with various kinds of fish; there are also many whales and seals.

10. *Face of the Country.* Chili presents a plain, gradually rising in elevation as it recedes from the coast and approaches the Andes. The country, intercepted between the foot of the Andes and the Pacific Ocean, is divided into two equal parts, the maritime and midland. The maritime part is intersected by three ridges of mountains, running parallel with the Andes. The midland part is generally level, of great fertility, and enjoying a delightful climate.

POLITICAL GEOGRAPHY.

1. *Divisions.* Chili is divided into 8 provinces: Coquimbo, Aconcagua, St. Jago, Colchagua, Maule, Concepcion, Valdivia, and Chiloe.

2. *Roads.* The high ridges which everywhere separate the valleys of Chili from each other, are passable only for mules. There are but 3 or 4 carriage roads in the whole country. The commerce with Buenos Ayres is carried on through the passes of the Andes. The pass most frequented is that of Uspalata, on the road between Santiago and Mendoza.

3. *Towns.* The metropolis of this country is *St. Jago*, or *Santiago*, situated in a delightful valley. It is built with great neatness, and the houses, though low, are commodious. Those of the superior inhabitants encompass a square court, and have in the front an ornamental porch, with a stable and coach-house on its two sides. Behind almost every house is a garden, beyond which runs a clear, rapid stream. The cathedral is a spacious edifice, 384 feet long. The mint is also a handsome building. Population, 50,000.

Valparaiso, which stands on a fine bay of the Pacific Ocean, is the port of Santiago, and enjoys considerable trade. Population, 20,000. *Concepcion* is pleasantly situated, and has a tolerable harbor. It was originally built 3 leagues to the north of its present position, but having been twice destroyed by earthquakes, the inhabitants removed hither. Population, 13,000. *Talcahuano*, the port of Concepcion, is 6 miles distant, on the southwest side of the bay of Concepcion. *Coquimbo* is pleasantly situated on the river of that name, and near a fine bay, in the 30th degree of south latitude. The city is large, but thinly peopled, and its port is at the mouth of the river, about 2 leagues distant. *Valdivia* stands on the banks of that river, and is a strong military post, situated near a good harbor, formed at the mouth of the river.

4. *Agriculture.* The soil of Chili is extremely favorable to the growth of maize, wheat, barley, and rye. Hemp also grows well. The sugar-cane, the cotton-tree, the banana, the sweet potato, and numerous other plants are cultivated. The vine yields abundantly, and the olive likewise attains great perfection. Forests of apple, peach, and quince trees, in some places extend for leagues. Oranges, citrons, and lemons are produced of an excellent quality.

5. *Commerce and Manufactures.* The chief trade of Chili is carried on with the United States, Great Britain, Peru, and Buenos Ayres. The exports, beside gold, silver, and copper, are hemp, cordage, hides, wine, and oil. The traffic between Chili and Buenos Ayres, consists principally in exchanging the Paraguay tea of the one country, for the precious metals of the other. A few articles for domestic use are manufactured in Chili. They consist mostly of coarse cloths, carpets, blankets, hats, saddles, &c., which are either used in the country, or exported to Peru.

6. *Inhabitants*, &c. The population consists principally of Spaniards, or people of Spanish descent, Indians, and Mestizoes, with a few French, English, Irish, Italians, and negroes. There are some independent Indians, as the Araucanians, Puelches, and Cunches. The Araucanians possess a great portion of country. They are well-formed and vigorous, intrepid, warlike, and jealous of liberty and honor. Ercilla found in the rude virtues of these people a subject for the best epic poem in the Spanish language.

In Chili the men follow the European fashion of dress, and the women that of Peru; the latter wear long gowns, and have a modest air. Much wealth is wasted in liveries, equipages, and ostentation. Many of the common people wear the universal poncho, a long cloth worn as a cloak, with a hole cut in it for the neck. The houses are low, and the inferior ones are sheds of woven branches. In cities, almost every house has a garden, as a refuge in earthquakes; and Santiago looks nearly as much like a forest as a city.

The food generally used is not peculiar, but there are good wines produced in Chili. The

Chilians.

most violent disease is the *chacao longo*, a fever, accompanied by a disorder in the head and delirium. The languages are the Spanish and the Chiliese, spoken by the independent tribes and others. Traveling is more difficult than in Peru, as a great part of the routes is over mountains. The inhabitants of Spanish descent are cheerful, frank, and honorable. They are as hospitable as the people of any country. They use their slaves also with great kindness. The peasants are dexterous horsemen, and are seldom out of the saddle. The beggars in the cities are sometimes mounted, and ride to solicit alms. The amusements are similar to those in the other South American States, and the lasso is used by the countrymen with the most astonishing precision. This, however, is general in South America. The lasso is a long line with a noose, which, in the hands of a Chilian riding at full speed, is cast over any animal, and on any part of it, over the horns, the neck, the body, or around the four legs, or any two of them. The children are often seen practising on poultry and cats.* Knowledge is at a low ebb in Chili, but the state of education is improving. There are 5 or 6 newspapers in Santiago. The Roman Catholic is the principal religion, and there are several orders of monks. Many of the Indians are pagans.

The southern part of Chili is chiefly occupied by the Araucanians, a remarkable nation of Indians, and is often called Arauco or Araucania. This region, celebrated in Spanish story and song, is described as one of the finest in South America. The Araucanians, having adopted the rude agriculture of the Spaniards, raise Indian corn in abundance, and have a good stock of horses and horned cattle. Their whole country is divided into 4 districts, governed by hereditary rulers called *toquis*, who are confederated together, and inferior chiefs called *ulmenes*.

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* "If a wild bull is to be caught, and two mounted horsemen, or Guassos, undertake to kill it, as soon as they discover him, they grasp the coil in the left hand, prepare the noose in the right, and dash off at full gallop, each swinging his lasso round his head. The first who comes within reach, aims at the bull's horns, and when he sees, which he does in an instant, that the lasso will take effect, he stops his horse and turns it half round, the bull continuing his course till the whole lasso, of 15 or 20 yards in length, has run out from the Guasso's hand. The horse, meanwhile, knowing by experience what is going to happen, leans over as much as he can in the opposite direction from the bull, and stands in trembling expectation of the violent tug which is given by the bull when he is brought up by the lasso. So great, indeed, is the jerk which takes place at this moment, that, were not the horse to lean over, he would certainly be overturned; but, standing as he does, with his feet planted firmly on the ground, he offers sufficient resistance to stop the bull as instantaneously as if he had been shot, though at full speed; and in some cases, the check is so abrupt and violent, that the animal is not only dashed to the ground, but rolls along at the full stretch of the lasso; while the horse, drawn sideways, ploughs up the earth with his feet for several yards. This, which takes so long to describe, is the work of a few seconds, during which the other horseman gallops past, and, before the bull has time to recover from the shock, places the lasso over the horns, and continues advancing till it also is at the full stretch. The bull, stupefied by the fall, sometimes lies motionless on the ground; but the horsemen soon rouse him up, by tugging him to and fro. When on his legs, he is like a ship moored with two cables; and however unwilling he may be to accompany the horsemen, or however great his struggles, he is irresistibly dragged along by them in whatever direction they please. If the intention be to kill the animal for the sake of the hide and tallow alone, as is often the case, one of the Guassos dismounts, and running in, cuts the bull's hamstrings with a long knife which he always wears in his girdle, and instantly afterwards despatches him by a dexterous cut across the back of the neck. The most surprising thing is, the manner in which the horse, after being left by his rider, manages to preserve the lasso always tight; this would be less difficult, if the bull would remain steady; but it sometimes happens that he makes violent struggles to disentangle himself from the lassos, rushing backwards and forwards in a furious manner; the horse, however, with wonderful sagacity, alters his place and prances about, as if conscious of what he is doing, so as to resist every movement of the bull, and never allowing the lasso to be relaxed for a moment. When a wild horse is to be taken, the lasso is always placed round the two hind legs; and, as the Guasso rides a little on one side, the jerk pulls the horse's feet laterally, so as to throw him on his side, without endangering his knees or his face. Before the horse can recover the shock, the rider dismounts, and, snatching his poncho or cloak from his shoulders, wraps it round the prostrate animal's head; he then forces into his mouth one of the powerful bridles of the country, straps a saddle on his back, and, bestriding him, removes the poncho; upon which, the astonished horse springs on his legs, and endeavors, by a thousand vain efforts, to disencumber himself of his new master, who sits composedly on his back, and, by a discipline which never fails, reduces the horse to such complete obedience, that he is soon trained to lend his speed and strength in the capture of his wild companions. During the recent wars in this country, the lasso was used as a weapon of great power in the hands of the Guassos, who made bold and useful troops, and never failed to dismount cavalry, or to throw down the horses of those who came within their reach. There is a well-authenticated story of a party of 8 or 10 of these men, who had never seen a piece of artillery till one was fired at them in the streets of Buenos Ayres. They galloped fearlessly up to it, placed their lassos over the cannon, and, by their united strength, fairly overturned it. Another anecdote is related of them, which, though possible, does not rest on such good authority. A number of armed boats were sent to effect a landing at a certain point on this coast, guarded only by these horsemen. The party in the boats, caring little for an enemy unprovided with fire-arms, rowed confidently along the shore. The Guassos, meantime, were watching their opportunity, and the moment the boats came sufficiently near, dashed into the water, and, throwing their lassos round the necks of the officers, fairly dragged every one of them out of the boats." — *Hall*

When war is declared, the toquis elect a general-in-chief; they use the European firearms, together with their own original arms, the bow, arrow, and club. When they set out on an expedition, each individual merely carries a bag of parched corn, trusting ere long to quarter themselves comfortably on the enemy. They have a religious belief, but no temples, priests, or sacrifices; their deities are Pillian, the supreme ruler; Meuben, the good genius; Ulencuba, the evil genius; Epunamum, the god of war, &c. Omens and divinations are also objects of firm belief, and witchcraft is among them a deadly sin. Marriage is always celebrated with a show of violence, for even after consent obtained, the bridegroom conceals himself in the road, seizes the bride, and carries her to his house. Polygamy prevails, and all the hard work devolves upon the females, who plough and reap; each wife is also required to furnish her husband with a *poncho* or cloak, some of which are very fine. Their towns are merely villages perched upon rocks, and their dwellings are rude huts. Their chief amusements are out of doors, but they are sometimes to be seen trotting round their rooms to sounds which resemble the filing of a saw.

7. *Government.* Chili is a republic, but the government is in an unsettled state. The country has been for some time agitated by the advocates for a federal and a central system of government.

8. *History.* Chili was formerly a colony of Spain, but, in 1810, the people took the government into their own hands, and, in 1818, made a declaration of absolute independence, which has been hitherto uninterrupted, and acknowledged by Portugal. The supreme authority was administered by an elective magistrate till May, 1827, when a president similar to that of the United States was substituted.

CHAPTER LXIV. BUENOS AYRES, OR PROVINCES OF LA PLATA.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* This country, sometimes called the Argentine Republic, is bounded N. by Bolivia; E. by Paraguay, the river La Plata, and the Atlantic Ocean; S. by the Atlantic and Patagonia; and W. by Chili and the Pacific. It extends from 20° 30′ to 41° S. latitude, and from 55° to 70° W. longitude. Its extreme length is 1,600 miles; and its breadth 1,000 miles; and it has an area of about 800,000 square miles.

2. *Mountains.* From the great chain of the Andes, branches diverge in different places, extending far into the interior; and the western and northern parts of the country are mountainous. The southern mountains are covered with thick, impenetrable woods, and are little known. The Brazilian range, on the east, is of secondary elevation, generally covered with thick forests, and interspersed with extensive tracts wholly destitute of vegetation. This extensive chain is connected with the Andes on the west and northwest by an intermediate range, called the mountains of *Chiquitos.*

3. *Plains.* This country is noted for the vast, unwooded plains, called *pampas.* They are generally elevated and dry, though traversed by numerous rivers; and present one uniform expanse of waving grass, uninterrupted by either wood or eminence. They commence at 73 miles from Buenos Ayres, to the west, and extend into Patagonia, upwards of 1,200 miles in length, and 500 in breadth. Innumerable herds of wild oxen, horses, ostriches, and other animals occupy these immense plains, and, under the shade of the grass, find protection from the intense heat of the sun. Over these pampas, lies the only road from Buenos Ayres to Chili.

4. *Rivers.* The principal rivers are the *Parana*, the *Paraguay*, the *Iguazu*, the *Uraguay*, the *Pilcomayo*, the *Rio Vermeio*, the *Rio Salado*, and the *Rio de la Plata.* The Plata has the largest volume of water of any river in the world, except the Amazon. It is formed by the union of the Parana and the Uraguay, at the distance of 175 miles from the ocean; at that point, it is 30 miles, and at its mouth 100 miles broad. The Parana, or main branch, rises in Brazil, and has a course of upwards of 2,000 miles; it receives the waters of the Paraguay, another large river, which also rises in Brazil, and is about 1,200 miles in length. The Pilcomayo and Vermeio, tributaries of the Paraguay, have their sources in Bolivia. The *Colorado* and *Negro* are the principal rivers to the south of the Plata. Rising in the Chilian Andes, they flow through desert and imperfectly known regions, into the Atlantic. The *Tucuman*, or *St. Jago de Estero*, after a course of 350 miles to the southeast, through the pampas, is lost in

the salt lakes of Porongos. The rivers which rise in the northwest parts, generally run to the north and northeast, and form the prodigious streams of the *Beni* and *Madeira*, tributaries of the *Maranon*.

5. *Lakes.* There are many lakes in this country, formed by the expansion of the rivers, in consequence of the extreme flatness of the country. Of this description is the celebrated lake of *Xarages*, which is nothing else than the superfluous waters of the Paraguay, when swelled by the tropical rains, and spread over an extensive flat. During the inundation, it is crossed in canoes and small boats ; and when the inundation has ceased, the whole plain is completely dry and covered with weeds. The lake of *Iberi* is 46 miles in breadth, and is solely nourished by the filtration of the waters of the Parana. In the southern parts are extensive salt lakes, from which vast quantities of salt can be obtained.

6. *Climate.* The climate is various, but generally healthy. The atmosphere is very humid ; and during summer rains are frequent, and are commonly accompanied by the most dreadful thunder and lightning. Fogs, snow, and hail are seldom experienced, except on the summits of the mountains. In Cayo, on the frontiers of Chili, the winters are excessively cold ; while in summer the heats are intense. At Buenos Ayres, and on the coast, the winds are extremely violent, and frequently raise clouds of dust which obscure the sun, and which penetrate into the houses and apartments of the inhabitants.

7. *Soil and Natural Productions.* The soil, like the climate, varies in this extensive country ; but a great part of it is fertile. The forests abound with straight and lofty cedars, which are excellently adapted for ship-building. The algorob, or carob-tree, is of great utility, and is found in abundance. There are numerous and beautiful species of palm. Among the native fruits is the *tatay*, which resembles the mulberry, but is yellow. The *molli* yields a copious and fragrant gum. The *zevil* yields a bark used in tanning. The *urucuy* shrub affords a strong scarlet dye. The *mani* grows under ground ; the fruit resembles the almond in taste and form, and produces oil superior to that of the olive. Other fruits, as the manioc, the maguey, baco ba, banana, and ananas, or pine apples, are found in profusion.

8. *Minerals.* The upper part of this country contains innumerable mines of gold and silver. These mines are all in the hands of private individuals, who, on discovering a mine, receive a grant from government, and are only held to pay a duty on the minerals extracted. Considerable quantities of gold, in dust and in grains, are found in the sands of some of the rivers. A gold mine is now wrought in the vicinity of Monte Video. In the mountains of Pacajes, are mountains which supply a stone called white jasper, which is beautifully transparent, and is used for windows. There are several mines which yield gems, particularly one of emeralds, much prized for their quality.

9. *Animals.* The zoology of this country is much the same as that of Chili and Peru. The jaguars are numerous, and commit great havoc among the oxen and sheep. Elks and deer are abundant. The *zorrino* is common on the plains. There are eight species of armadillos peculiar to this country. The ant-eater, the tapir, the puma, the guanaco, the paco, the vicuna, the lama, and the chilihuique (see description under head of *Animals* of South America) abound here. A great many tigers, as well as wild horses and ostriches, are caught with the lasso by the Indian and creole inhabitants. An immense variety of birds inhabit this country. There are about 20 different species of serpent, 1 of which is of prodigious size. Rattlesnakes are common. Locusts form an annual pestilence. Domesticated animals of European importation have increased prodigiously ; and form one of the chief sources of the wealth of the country.

Indian taking an Ostrich with the lasso.

10. *Face of the Country.* This country resembles an extensive amphitheatre, bounded

laterally by the Andes and the Brazilian mountians, and on the north by the tract of the *Chiquitos*, leaving towards the southeast the immense opening of the Rio de la Plata, like a wide and magnificent portal, proportioned to the grandeur and extent of the region to which it gives access. Within these limits, some scattered and intermediate ridges excepted, the country is extremely level, the hills generally not exceeding 540 feet of elevation above their bases ; and the whole being a vast extended plain, covered with lakes and innumerable rivers.

POLITICAL GEOGRAPHY.

1. *Divisions.* This country is divided into 14 provinces, which are now independent of one another.

Buenos Ayres
Entre Rios
Corientes
Santa Fe
Cordova
Santiago
Tacuman
Salta
Jujuy
Catamarca
Rioja
San Juan
San Luis
Mendoza.

2. *Towns.* *Buenos Ayres*, the capital, stands on the southwest side of the La Plata, 66 leagues from its mouth. The situation is agreeable, and the city derives its name, signifying *Good Airs*, from the salubrity of its climate. The streets are straight and regular, and some of them are paved. The houses are mostly built of brick or chalk, with flat roofs, many of them of 2 stories, though the greater part only of 1. Almost every house is surrounded with a garden. The principal square, or parade, which is very spacious, faces the La Plata, and is surrounded with superb buildings. The public edifices are a palace, a royal chapel, a cathedral, a college, and 2 hospitals, 4 monasteries, 2 nunneries, 10 or 15 churches, a public library of nearly 20,000 volumes, an academy, and 8 public schools. There is no harbor at Buenos Ayres, nor so much as a mole to facilitate the landing of boats. Ships can only come up to *Barragaus*, within 3 leagues of the town. The population is 80,000. About one fourth of the inhabitants are whites ; and the rest are Indians, negroes, and mixed breeds.

Corrientes, a small town with about 3,000 inhabitants, situated near the confluence of the Parana and Paraguay, has great natural advantages for inland commerce. *Cordova*, formerly rendered important by its famous university, which is now sunk into insignificance, enjoys an active internal commerce, and carries on considerable manufactures of woolen and cotton. Population about 12,000. *San Juan*, in the State of the same name, produces large quantities of wine and brandy, and has an extensive traffic. *Mendoza*, on the eastern declivity of the Andes, has also an active trade in wine and fruits. These towns have each about 16,000 inhabitants. *Upsallata*, a little town in the State of Mendoza, is celebrated for its rich silver mine. *Salta* and *Tucuman*, with 10,000 inhabitants each, and *Santa Fe*, with 5,000, are the other principal towns.

3. *Agriculture.* As almost every variety of soil and climate is to be found within the limits of this country, so every vegetable production would grow by proper cultivation. Maize, cocoa, olives, sugar-cane, grapes, oranges, lemons, citrons, and figs, attain great perfection. Wheat is cultivated with success, and apples, pears, plums, cherries, and other fruits are plentiful. Abundance of tobacco is produced in some parts.

4. *Commerce and Manufactures.* The internal commerce of Buenos Ayres is considerable. Of this traffic, the herb of Paraguay forms the most important branch ; 2,500,000 lbs. of it pass annually into Peru, and 1,000,000 lbs. into Chili. The greater part of the European commodities, consumed in Chili, is drawn from Buenos Ayres. The principal exports are, hides, tallow, beef, gold, and silver. Manufactures have not advanced very prosperously in this country.

5. *Army and Navy.* The military force of the republic is estimated at 28,000 men ; and the naval force amounts to 15 small vessels, carrying from 7 to 14 guns.

6. *Revenue.* The revenues of the province of Buenos Ayres in 1829 amounted to 8,000,000 dollars, in a paper currency so depreciated, that 8 dollars were only equal to 1 silver dollar. The expenses of the year were 10,000,000 dollars ; the public debt is 20,000,000 dollars.

7. *Population.* The population of this country is computed to be about 800,000. They consist of descendants of Spaniards, Indians, negroes, and mulattoes.

8. *Government.* Buenos Ayres has at present an organized republican government, with a Governor, and Captain-general, and a House of Representatives. This province was lately

under the power of a military Dictator, and some of the other provinces are at present in the same state.

9. *Inhabitants.* The inhabitants are European Spaniards, Creoles, Negroes, Indians, and the mixed races. The Chiquitos are a numerous and civilized nation of independent Indians. There are many other tribes. The houses at Buenos Ayres are generally of but one story, though well built. Almost every house has a garden. In the country the dwellings are mere huts. A great part of the food is beef. The matte or Paraguay tea, is used. With such plain food, diseases are rare. The traveling over the immense plains is peculiar ; the horses, nearly wild, are driven at full speed, over the grassy plains, and Captain Head used to perform more than 100 miles a day. There is a sameness in the character of all the South American States. The strictest equality reigns among the Creoles. No white would serve any one of his nation. In the cities there is much dissipation and vice. But the people are generous, lively, and fond of show. The houses however are filthy.

In the country the inhabitants are cultivators or shepherds ; the latter, or Gauchos, are the most numerous, and they offer but a bad specimen of the pastoral character. They live little better than the Indians ; they sit upon their heels, or the skulls of their cattle, and sleep on skins. Their only food is roasted meat, eaten without salt. Pulse and vegetables they consider as fit only for horses. They wear the *poncho*, or cloak with a hole in the middle for the head, a hat, a pair of drawers, and boots of fresh hide. The women wear merely a shirt without sleeves, bound with a girdle round the middle. The shepherds are the best of horsemen, and perform all the operations of husbandry on horseback ; they fish on horseback, and hear mass on horseback, sitting in the saddle at the church door. The negro slaves are treated in Buenos Ayres with rare kindness. Many of them, according to Azara, never hear the sound of the whip, and none are deserted in old age.

The common amusements partake too much of gaming. Education is not in a flourishing state. The Roman Catholic is the general religion, and the cathedrals and churches are richly adorned. There are many convents and monasteries. Among the foreigners are Episcopalians, Presbyterians, Baptists, &c. The dead are burned, or lodged in churches, where the pavement is sometimes removed, and a small excavation made, often insufficient to contain the body, which is beaten down to a level.

10. *History.* The Jesuits early formed settlements in these regions, and their efforts to civilize and convert the Indians were attended with much success. The country continued under the rule of a viceroy, appointed by the King of Spain, till the year 1808, when a revolution was effected in the city of Buenos Ayres, and the viceroy was deposed and sent to Europe. The Spaniards have since made several attempts to reduce the patriots of the country, but without success. In July, 1821, a great battle was fought between the parties, in which the Spaniards were defeated. The tranquillity, however, of the United Provinces, has been much disturbed by disputes with the Monte Videans, Paraguay, and Brazil. They first assumed the title of United States of South America, and afterwards of the Argentine Republic or United Provinces of the Plata. But the union has been broken by mutual jealousies, and the country has not yet secured internal order and a settled government.

CHAPTER LXIV. PARAGUAY.

This country is bounded N. by Brazil, E. and S. by the river Parana, and W. by Buenos Ayres and Bolivia, and has an area of 90,000 square miles. The principal rivers are the *Paraguay*, the *Parana*, the *Porrudos*, and the *Tibiquari*. The country is flat, and abound in plains, swamps, and lakes. The soil is extremely fertile, and abounds in rich vegetable productions. The plains are fed by immense herds of horses, mules, cattle, and sheep. The forests abound in birds, remarkable for their rich plumage. Among the remarkable birds, is the great cassoway or American ostrich. The principal exports are hides, tallow, wax, horses, Paraguay tea, and tobacco. The population is 250,000, of whom 20,000 are whites, and the rest mestizoes and Indians. This province declared itself independent in the year 1813, and established a government consisting of several members. In about 3 years this government was abolished, and all the powers of government fell into the hands of Doctor Francia, who still exercises them under the title of Dictator. He administers the government with great vigor and severity, and maintains the most rigid police in every part of his territories. He has strictly prohibited all intercourse with foreign countries. He has published a decree which has been enforced with a very few exceptions, by which all inhabitants of Buenos Ayres, Santa Fé, and Corrientes, who shall enter his territories shall be punished with death, and those of all other countries with perpetual detention.

The Cabildo, or Municipal Government of the several towns, is chosen annually by the people. Indians, as well as Creoles, and mixed breeds, are eligible to these offices. There is perfect security for person and property. Each district is made responsible for every theft committed within it. All the inhabitants, Indians as well as Creoles, know how to read, write, and keep accounts. Public schools are established everywhere, and children are required to attend them, until, in the judgment of the Cabildo, they are sufficiently instructed. The Dictator has established lyceums, and other liberal institutions. Everybody is required to labor, and mendicity is prohibited. The people appear to be contented and happy under this strict regime.

Assumpcion is the capital, and the usual residence of the Dictator. It has 6,000 inhabitants. Itapua, on the Parana, and New Coimbra, on the Paraguay, are towns on the frontiers of Brazil, through which a limited foreign trade is permitted to be carried on, which is regulated by treaty. Villa Rica is a town of 3,000 inhabitants, and Conception has 1,500.

CHAPTER LXV. REPUBLIC OF URUGUAY.

1. ***Boundaries and Extent.*** The republic of the Uruguay is bounded on the N. and E. by Brazil; S. by the Atlantic, and W. by the Uruguay, which divides it from the States of Corrientes and Entre Rios. It has an area of 80,000 square miles, and a population of 70,000 souls. This territory formerly belonged to the Spanish vice-royalty of the Plata, and was called the Banda Oriental (Eastern Frontier) from its geographical position. It was afterwards claimed by Brazil, but in 1828, after a bloody war between the Brazilians and Buenos Ayreans, the two parties agreed to its being erected into an independent State.

2. *Towns.* *Monte Video*, the capital of the republic, is situated on the Plata, and is regularly built, but the houses are low and the streets are not paved. It has a good harbor, and formerly enjoyed an extensive commerce. The prosperity of the city has been much affected by the wars between the neighboring States, and its population has much diminished. It now contains about 10,000 inhabitants. *Maldonado* and *Colonia*, are small towns on the Plata, with good harbors.

CHAPTER LXVI. PATAGONIA, TERRA DEL FUEGO, &c.

1. PATAGONIA. *Extent*, &c. This name is applied to the vast region extending south from the Cusu Leuvu or Rio Negro, to the Straits of Magellan. It is of indefinite extent, the southern boundaries of Chili and Buenos Ayres being unsettled, and in fact the former extends its claims, on the west of the Andes, to the southern extremity of the continent, and the Buenos Ayreans, having established a post, El Carmen, on the Negro, claim the eastern portion. Patagonia, however, may be considered as stretching from about 40° to 54° S. lat., with an extreme length of 960 miles, and a breadth of about 400 in the north, and 200 in the south. The western part of this country is bordered by a prolongation of the Andes; but these mountains, after passing Chili, no longer display that stupendous elevation which marks so great a portion of their range. Their general height from thence to the Straits of Magellan, is not supposed, by Captain King, the last and most thorough explorer of these shores, to exceed 3,000 feet, though some peaks rise to 5,000 or 6,000, when they wear a most dreary aspect, being covered with perpetual ice and snow. This part of the chain has no valley interposed between it and the ocean, whose stormy waves beat direct against its cliffs, and have furrowed the land into almost numberless islands, separated from the continent and each other by long and narrow channels, which have been lately discovered and examined by the distinguished officer above mentioned. One continental peninsula alone, that of Tres Montes, is directly exposed to the waves of the Pacific. Of these isles, the largest and most northerly, called Wellington, is separated from the continent by the Channel of Mesier, 160 miles long, whose shores are bordered by low hills, covered with thick woods. To the southward is the archipelago of Madrede Dios or Mother of God, of which little is known. The Channel of Conception, which divides it from the continent, is broad and safe, and the opposite coast, deeply indented with bays, the principal of which, called St. Andrews, is terminated by ab-

rupt mountains, covered by enormous glaciers. Next follows Hanover Island, of considerable extent, and to the south of it a numerous group, called the Archipelago of Queen Adelaide, which borders on the Straits of Magellan. In the interior are some large salt-lakes.

East of the Andes the country consists chiefly of a vast unwooded plain, forming a part of the great pampas of Buenos Ayres, but traversed by some ridges of hills. This section contains some considerable rivers, of which the Camerones is the principal ; the interior, however, is little known. On the coast are several good bays and harbors, such as Ports Desire, St. Julian, Sta, and Cruz, which afford good anchorage, and are often resorted to by vessels engaged in the southern fishery. Here also are the large bays of St. George and St. Antony. The natives are seldom seen on this coast, which they are said to frequent only for the purpose of interring their dead. The southern extremity of the continent is a small peninsula projecting into the Straits of Magellan, and terminating in a point called Cape Froward.

2. *Climate.* Captain King mentions a circumstance relative to the temperature of the climate, which is very remarkable. During the summer, he has been employed at his observatory the greater part of the night, when the thermometer has been as low as the freezing point, both within and outside of it, and, although not warmly clad, he felt no sort of inconvenience from the cold ; and, in the winter time also, the thermometer has been at 24°, without any inconvenience being felt. He attributes this to the peculiar stillness of the atmosphere on the coast, although at a short distance at sea in the offing, the wind was high. There are other peculiarities in this climate, which also attracted the attention of Captain King. One is the extraordinary warmth of the sea near its surface, compared with the state of the atmosphere. In the month of June a difference of 30° was found between the temperature of each ; the consequence of which is, that the sea is covered with a cloud of steam, and this may, in some measure, account for the prevalence of fogs. Another extraordinary circumstance relating to the climate is, that parrots and humming birds, generally the inhabitants of warm regions, are numerous in the southern and western parts of the strait ; they were even observed on the wing during a snow shower, and after a constant succession of rain, snow, and sleet ; the latter have been seen sipping the sweets of the fuschia and other flowers, while the thermometer was at the freezing point.

3. *Soil,* &c. Though a few valleys have been found here and there along the coast to be tolerably fertile and warm, yet navigators universally concur in representing the soil of the Patagonian coasts as barren, hardly producing any grain, the trees exhibiting a dismal aspect, and the climate excessively cold. The country abounds with wild animals, as deer, guanacoes, hares, and ostriches ; while multitudes of water-fowl frequent the rocky shores. Prodigious numbers of seals, from 14 to 18 feet long, and thicker than a bull, are to be found in the vicinity of Port Desire.

One of the most singular birds is the steamer-duck, as it is called by the sailors. "Before steamboats were in use," says Captain King, "this bird was denominated, from its swiftness in skimming over the surface of the water, 'the race-horse,' — a name which frequently occurs in Cook's, Byron's, and other voyages. It is a gigantic duck, — the largest I ever met with. It has the lobated hind toe, legs placed far backwards, and other characteristics of the oceanic ducks. The principal peculiarity of this bird is the shortness and remarkable small size of the wings, which, not having sufficient power to raise the body, serve only to propel it along rather than through the water, and are used like the paddles of a steam vessel. Aided by these, and its strong, broad, webbed feet, it moves with astonishing velocity. It would be no exaggeration to state its speed at from 12 to 15 miles an hour. The peculiar form of the wing, and the short, rigid feathers which cover it, together with the power this bird possesses of remaining a considerable time under water, constitute it a striking link between the genera *Anas* and *Aptenodytes.* The largest we found measured 40 inches from the extremity of the bill to that of the tail, and weighed 13 pounds. It is very difficult to kill them, on account of their wariness and thick coat of feathers, which is impenetrable to anything smaller than swan shot."

4. *Straits of Magellan.* This celebrated strait is a long, winding channel, which bears the name of the celebrated Magallaeus, a Portuguese discoverer, who first penetrated by it into the Pacific Ocean ; it is about 360 miles in length, and opens into the Atlantic between Cape de las Virgines and Point St. Catherine, and into the Pacific between Cape Pilanes and Cape Philip. The following description from Captain King, gives the most full and authentic account of the straits and the adjacent country.

"The Strait of Magellan, being a transverse section of the continent, exhibits a view of its geological structure. The strait may be divided into 3 portions, — the western, the central, and the eastern. The western and central are of primitive character, rugged and very mountainous; but the eastern portion is of recent formation, and low. The western tract is composed of a succession of stratified rocks, a difference at once distinguishable by the form and nature of the ranges, and the direction of the shores. The hills are irregularly heaped together, the sounds are intricate and tortuous in their course, and the shores are formed by deep sinuosities and prominently-projecting headlands; the channels, also, are studded with innumerable islands and rocks, extremely dangerous for navigation. In this portion, the rock is for the most part granite and greenstone. Near the centre of the strait, the rock being clay slate, the mountains are higher, and more precipitous and rugged in their outline. They are in general 3,000 feet, but some are found to be 4,000 feet in height, and one Mount Sarmicato, is 6,000 feet high, and is covered throughout the year with snow. The line of perpetual snow in the strait seems to be about 3,500 feet above the sea. The strait is here quite free from islands; and it is a remarkable fact, that where the greenstone formation terminates, there the islands cease to appear. The slate formation continues as far as Freshwater Bay, where the stratified rocks leave the coast, and extend in a northwest direction. In that portion of the strait to the eastward of Cape Negro, the hills are remarkable for the regularity and parallelism of their direction, and their general resemblance to each other. The irregularity of the topographic features of the western portion of the strait, combined with its confused assemblage and immense number of rocks and islands, — the regularity of the strata, — the coinciding parallelism of all the bays, channels, and sounds, and the total absence of islands in the central portion, a slate formation, — together with the remarkable similarity of the direction of the hills and coast line, and the stratification of the northeastern tract, which is very different from that of the centre, are very striking facts, — and, geologically considered, are of great interest.

"No less remarkable, however, and equally interesting, is the character of the vegetation, not so much in the variety of the plants as in their stunted growth to the westward, their luxuriance in the centre, and the total absence of trees to the eastward. For this modification the following reasons seem to me to account sufficiently. To the westward, the decomposition of granite, and the other primitive rocks which are found there, prove but a poor, unproductive soil, — so that, although the land is thickly covered with shrubs, they are all small and stinted; the torrents of water, also, that pour down the steep sides of the hills, wash away the partial accumulations of soil that are occasionally deposited, — consequently few trees are to be found, excepting in clefts and recesses of the rocks, where decomposed vegetable matter collects and nourishes their growth."

5. *Inhabitants.* The Patagonians have often been represented as being of gigantic stature, and numerous contradictory statements have been published by navigators, professing to give the results of actual measurements; in the following description of these people taken from King's voyage, it will be seen, that he denies their superior size, but it is not impossible that a roving tribe, seen at different points of the coast, and somewhat above the medium height of Europeans, may have given rise to the opposite statements.

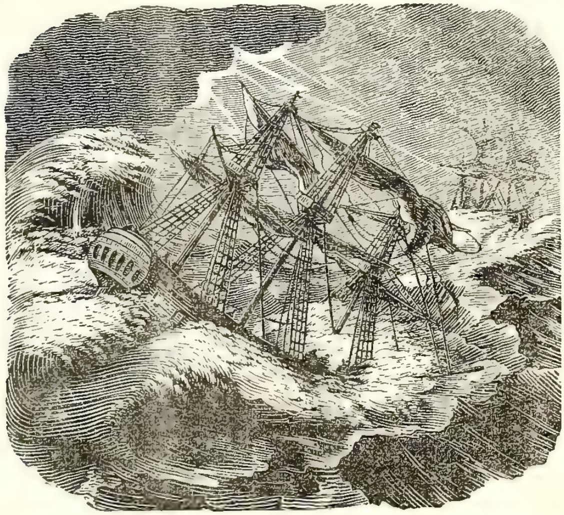
A Patagonian frightened at himself in a glass.

"For want of better information," says Captain King, "we must be content to separate the natives into Patagonians and Fuegans. The sealing crews distinguish them as Horse Indians and Cande Indians. These people have had considerable communication with the sealers who frequent this neighborhood, bartering their guaneco meat and skins, their mantles and furs, for beads, knives, brass ornaments, and other articles, but they are equally anxious to get sugar or flour, — but more than all *aqua ardiente* spirit.

"The Patagonian women are treated much more kindly by their husbands than the Fuegans. The latter are little better than slaves, liable to be beaten, and obliged to perform all the laborious offices of the family. The Patagonian female sits at home grinding paint, stretching or drying skins, making and painting mantles. The Fuegans paddle the canoes, dive for shells and sea-eggs, build their wigwams, and keep up the fire. If they neglect any of these duties, to incur the displeasure of their husbands, they are struck or kicked. The Patagonians are devotedly attached to their offspring. The cradle is made of wicker work, about 4 feet long, and 1 foot high, roofed over with twigs like the frame of a tilted wagon. The child is swaddled up in skins, with the fur inwards or outwards, according to the weather. Seeing one of these cradles near a woman, I began to make a sketch, upon which the mother called the father, who watched me attentively, and, during the afternoon, both frequently reminded me, that I had drawn their child.

" *Size of the Patagonians.* At this visit there were 50 Patagonian men assembled. They are generally from 5 feet 6 inches to 5 feet 10 inches in height. One man only exceeded 6 feet. I had before remarked the disproportionate largeness of head and length of body of these people, as compared with the diminutive size of their extremities ; and on this visit my opinion was further confirmed, for such appeared to be the general character of the whole tribe. To this, perhaps, may be attributed the mistakes of former navigators. Magalhaens described the inhabitants of the southern extremity of America as giants. Herrera said, that the smallest man among them was larger than the tallest man in Castile ; and Transylvannen said they were 7 feet 6 inches on an average. Taking all the evidence together, the medium height of the males may be considered 5 feet 8 inches. The women are not so tall, but are, in general, broader and stouter ; they are generally plain featured. The head is long, broad, and flat, and the forehead low, with the hair growing within an inch of the eyebrows, which are bare ; the eyes are often placed obliquely, and have but little expression ; the nose is generally rather flat and turned up ; but we noticed several with that feature straight or rather aqueline. The mouth is wide, with prominent lip, and the chin is rather large, — the jaws are broad and give the face a square appearance, — the neck is short and thick, — the shoulders are broad, — the chest is very broad and very full, — but the arm, particularly the fore arm, is small, as are also the feet and legs ; the body long, large, and fat, but not corpulent. Such was the appearance of those who came under my observation."

6. *Terra del Fuego.* This name, signifying the " Land of Fire," was given to the region on the south of the Straits of Magellan, by the first navigators of that channel, from the numerous fires seen on the coasts, supposed to be the flames of volcanic mountains. Subsequent explorations have shown, that the Terra del Fuego consists of a large archipelago, containing numerous small islands, divided by narrow straits, and 3 larger masses of land, of which the most eastern and largest is called King Charles Southland, the middle and smallest, Clarence Island, and the most westerly, Desolation Land.* Among the numerous islands south of these larger ones, are Hoste and Navarino, separated from the former by a long, narrow channel, named, from Captain King's ship, the Beagle ; still farther south is the little island called L'Hermite, remarkable as containing Cape Horn, the most southerly prominent point of America, although the little islands of Diego Ramirez lie some distance further south. Cape Horn is in 55° 58′ south latitude, and, facing directly the great ocean wastes which surround the Antarctic Pole, it was long deemed famous for tempests ; but although a stormy and exposed point, it may be passed without



Vessel going around Cape Horn.

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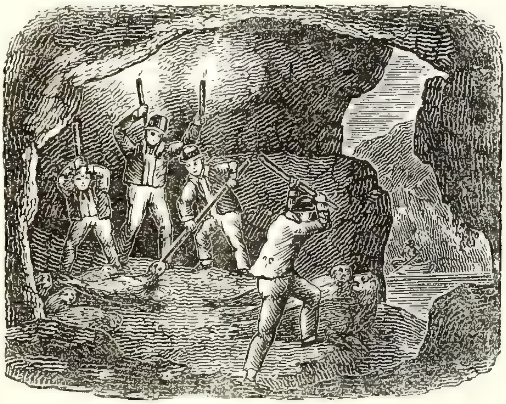
* " *Whirlwinds in Terra del Fuego.* On the north shore we noticed some extraordinary effects of the whirlwinds which so frequently occur in Terra del Fuego. The crews of sailing vessels call them williwaws, or hurricane squalls. The southwest gales, which blow upon the coast with extreme fury, are pent up and impeded in passing over the highlands, when, increasing in power, they rush violently over the edges of precipices, expand, as it were, and,

danger in the proper season, and is commonly preferred to the winding and difficult channel of Magellan. East of King Charles Southland is Staaten Land, another large island, separated from the former by the Straits of Lemaire.

7. *Falkland Islands.* This group, called Malouines by the French, consists of 2 large islands, and about 90 smaller ones. The surface of the 2 larger islands, which are separated by a strait about 6 miles wide, is about 3,400 square miles. The mountains reach the height of 2,000 feet ; but there are extensive plains hardly containing a hill. The coasts are much indented and contain numerous excellent harbors, among which are Berkeley Sound on West Falkland, and Port Egmont on East Falkland, or Soledad, both deep, capacious, and secure. The climate does not differ much from that of the British Islands ; the range of the thermometer in winter being from 26° to 50° in the winter, and from 50° to 75° in summer ; snow seldom lies long, and ice rarely forms more than an inch thick. Fogs are frequent, especially in autumn and spring. There are no trees on the islands, but peat and bushes supply fuel. Foxes, having a coarse fur, abound. Seals crowd the shores, and the whale is taken in the neighboring seas. Clouds of wild geese and ducks are met with, and the flocks of gulls and penguins are valuable on account of their eggs. The domestic animals that have been left here by Europeans thrive well, and large herds of wild cattle, hogs, and horses are now found on the islands. The soil is good, and wheat, flax, potatoes, cabbages, &c., have been found to succeed. These islands were discovered by Hawkins, an English navigator, in 1594, and in 1766 the English formed a settlement in Port Egmont, but they were soon after expelled by the Spaniards. The islands were then neglected for a long time ; but the recent extension of the southern seal and whale fisheries, and the opening of the trade to the whole western coast of America, and the South Sea islands, have of late given them a new importance, and in 1817, a settlement was again made by the English at Port Egmont.

Sea Lion.



Killing Seals.

8. *Aurora Islands.* About 200 leagues east of the Falkland Islands are the Aurora Islands, in lat. 53° S., long. 44° 20′ W., a group of 6 small islands, discovered in 1759, but since lost sight of and searched for in vain, so that they had been expunged from the maps, until they were rediscovered by the American Captain Burrows, in 1838.

9. *South Georgia.* In this department may be reckoned South Georgia, an island of considerable size, lying to the S. E. of the Aurora Islands, in 36° W. longitude, and in 54 S. latitude. This island was first discovered by La Roche, a French navigator, in 1675 ; it was visited by the Spaniards in 1756, and explored by Captain Cook, in 1771. It may be termed a land of ice, presenting rocks and mountains of that substance ; while the vales, destitute of trees or shrubs, are clothed in perpetual snow, the only vegetables being a coarse species of

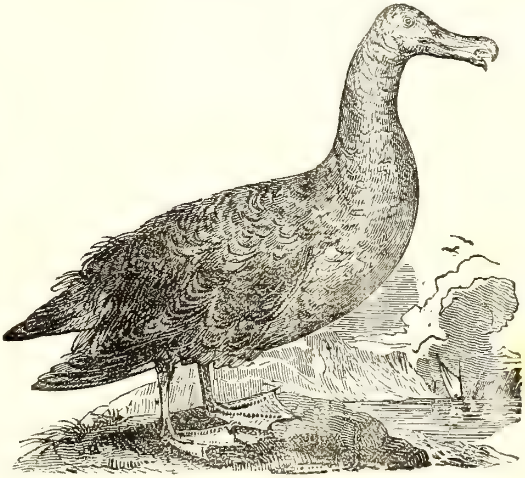
descending perpendicularly, destroy everything movable. The surface of the water, when struck by one of these gusts, is so agitated as to be covered with foam, which is taken up by them, and flies before their fury until dispersed in vapor. Ships at anchor under high lands are sometimes thrown over on their beam ends, and the next moment recover their equilibrium as if nothing had occurred. Again, a squall strikes them perhaps on the other side, and over they heel before its rage ; the cable becomes strained, and checks the ship with a jerk that causes her to start ahead through the water, until again stopped by the cable, or driven astern by another gust of wind. At all these anchorages under high lands, there are some parts more exposed than others. In many parts of the country, trees are torn up by the roots, or rent asunder by the wind."

grass, burnets, and lichens. The rocks are of blackish, horizontal strata, perhaps approximating to hornblende. The lark, a hardy bird, appears here as well as in Hudson's Bay, and there are numbers of large penguins, seals, and sea elephants. The abundance of these last attracted the notice of those southern fisheries, who prosecuted the chase with such activity, that these animals have been nearly extirpated.

10. *New South Shetland Islands*, &c. Still further to the south, and more desolate, are the Islands of New South Shetland, which were discovered in 1818, and taken possession of, in the name of his Britannic majesty. The extent of this group so far as it has been explored, is from 54° to 65° W. longitude, and from 61° to 64° S. latitude. It consists of numerous islands without a vestige of vegetation, except a species of moss, and in a few solitary spots, something resembling grass. The interior is mountainous, and covered with eternal snows. A species of coal is found, which burns well. Seals are extremely plentiful, and shrimps and penguins are numerous beyond all conception. The larger islands are 12 in number. Some of the harbors are very good ; vessels in them being land-locked. No field ice is seen in their vicinity, but innumerable ice islands are floating about.

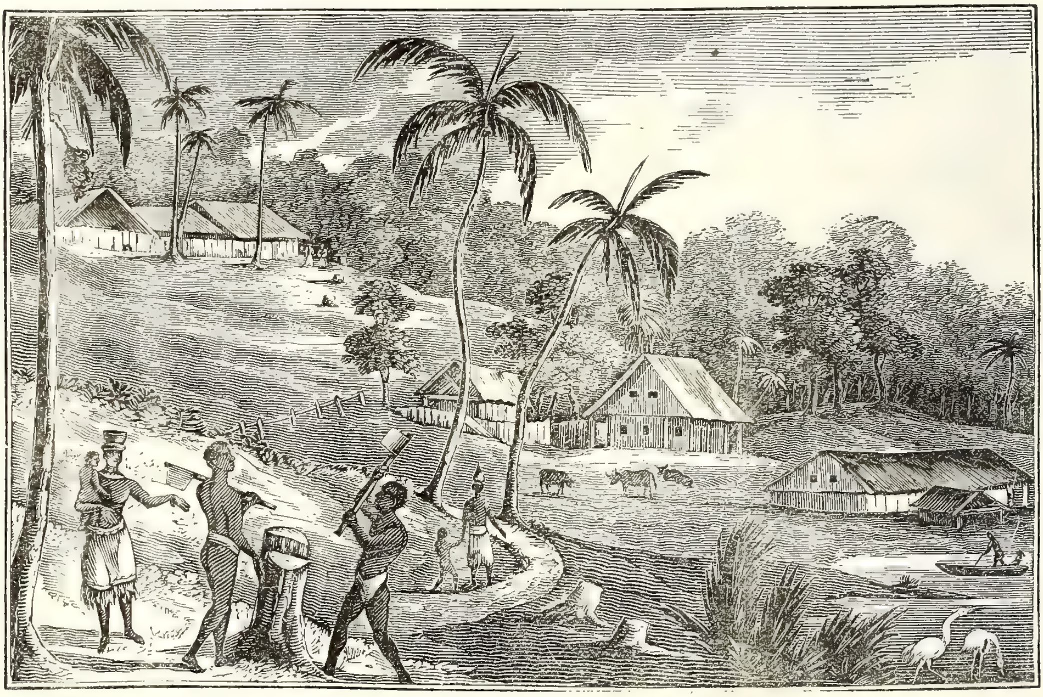
The principal islands are Barrow's, King George's, and Livingston ; such has been the improvident destruction of the seals, for their skins and oil of late years, that even here they have been greatly thinned. To the east is a smaller group called the New Orkneys, and a little to the northeast a number of small islands, which being at first supposed to form a continuous coast, were named Sandwich Land. To the south of New Shetland, in about latitude 65°, a Russian captain, Bellinghausen, lately observed a range of coast which he called Trinity Land, and in 1831, Captain Biscoe touched upon a coast of uncertain extent, in 66° south latitude, which he named Graham's Land. Two Russian frigates, in 1829, penetrated to 69°, and found two islets at some distance from each other, to which they gave the name of Peter and Alexander ; these are the most southerly spots of land yet known to exist. No human inhabitants are found in these dreary realms, the abode of eternal winter ; but the cupidity of man dares the horrors of these icy seas. The shores are crowded with the huge amphibia, whose rich coating of oil renders them a tempting prize, and a terrible havoc has been made among them, of late years. The walrus of the Arctic regions is here replaced by the sea-elephant, a still larger creature, and richer in oil, and the seals have a fine furred skin, which bring a high price in China. These animals, on entering the water, take in a certain quantity of pebbles as ballast, which they throw out on coming ashore. These coasts are generally distinguished for the legions of sea-birds, of enormous size and peculiar form ; among which the penguin and the albatros are the most remarkable. The latter, known to sailors as the man-of-war bird (*Diomedea exulans*), with wings extending 14 feet or more, is

Penguin.


Albatros.

the largest sea-bird known, sometimes weighing 28 pounds. The plumage is white, with the exception of some black bands on the back ; it is seen in the stormy solitudes of the Southern Ocean, accompanying ships for whole days without ever resting on the waves. Notwithstanding their great strength, however, they never venture to attack other sea-birds ; but are, on the contrary, attacked by the gulls. The penguins (*Aptenodytes Magellanica*), half bird and half fish, form long files along the beach like a procession of monks, and sit in great numbers upon the nests, so closely placed together as to form considerable *towns*, as they are called by the sailors. This bird has merely a sort of finny wings, which it uses as oars in the water, and is wholly unable to fly ; it is so stupid and inactive as to suffer itself to be knocked down with a club, and its upright posture and grave air give it a most ludicrous aspect when ashore.

CHAPTER LXVII. GUIANA.



Scene in Guiana.

1. *Boundaries*, *Extent*, &c. This country is bounded N. by the Atlantic Ocean ; E. by the Atlantic ; S. by Brazil ; and W. by Colombia and Brazil. It extends from the mouth of the Amazon to that of the Essequibo ; and lies between 1° and 7° N. latitude, and 50° and 60° W. longitude. The name of Guiana was formerly given to the country extending from the Orinoco to the Amazon ; but Spanish Guiana now forms a part of Colombia, and Portuguese Guiana is annexed to Brazil. The rest of the country belongs to the English, Dutch, and French.

2. *Rivers.* The country is watered by the tributary streams of the Orinoco and Amazon. The principal rivers which fall directly into the Atlantic, beginning in the north, are the *Essequibo*, the *Demerara*, the *Berbice*, the *Corantine*, the *Surinam*, the *Marony*, and *Oyapoco*. All these rise in the mountains, and are generally navigable for some distance into the interior.

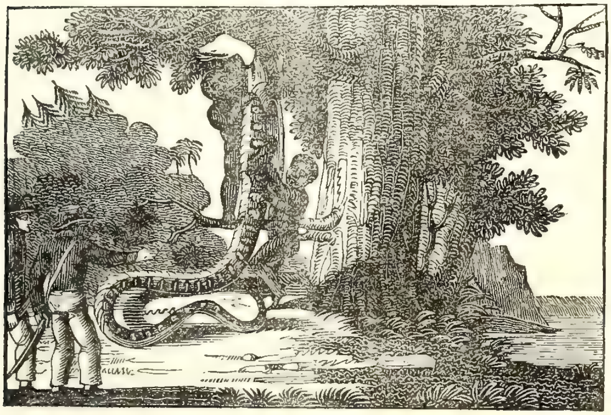
3. *Shores.* The coast of Guiana is rendered almost inaccessible by dangerous banks, rocks, quicksands, and bogs. Along the seashore, the country presents the appearance of an extensive and uniform plain. It is covered with thick forests, even to the water's edge, and the coast is so low and flat, that nothing is seen at first but the trees, which appear to be growing out of the water.

4. *Climate.* The climate in the maritime parts is milder than that of most other districts

between the tropics. It receives the full benefit of the trade wind, which in these latitudes constantly blows from the east. A stream of cool air is, therefore, continually poured upon these shores, after having traversed the sea for thousands of miles. The country is subject to heavy and frequent rains, and, from the great prevalence of moisture and heat, is unhealthy.

5. *Soil and Natural Productions.* The soil is surprisingly fertile, and a most luxuriant vegetation almost everywhere overspreads the country, which abounds with the finest woods, fruits, and plants. Many of the trees grow to the height of 100 feet. Some are valuable for their peculiar hardness and durability ; others are richly veined, capable of taking the finest polish, and well adapted for all sorts of ornamental furniture ; while others yield valuable dyes, or exude balsamic and medicinal oils. The most delicious fruits are met with. The guava and aviago pear are found in great abundance, and the pine apples and other fruits are of the finest quality.

6. *Animals.* Wild animals and beasts of prey are abundant, and are similar to those of the other South American territories. In the rivers are to be found the cayman, the tapir, the manati, the paca, and the pipa. Of the serpent tribe there are various species, from the large aboma snake, which grows to the length of 20 and 30 feet, to those of the smallest size. The woods of Guiana abound with every variety of the feathered species. The vampire bat is also found, and grows to an enormous size. Insects and reptiles of all sorts are produced in such abundance, that the annoyance from this source is inconceivable.



Serpent of Guiana.

7. *Face of the Country.* The country is level and uniform, along the seashore. In the interior, it rises into mountains, which frequently contain a great variety of mineral substances. Rich and fertile valleys are interspersed throughout these mountainous tracts.

8. *Cayenne.* French Guiana, or Cayenne, extends to a great distance inland, but the interior is occupied by independent Indians. The population of the portion actually inhabited by the French, does not exceed 25,000, of which 20,000 are slaves, 2,250 free colored persons, 1,300 whites, and the remainder Indians. The principal town and capital of the colony is *Cayenne*, situated on a small island, with a good harbor. Population, 3,000. *Sinnamari* is a small village, celebrated as the place to which many distinguished men were transported during the French revolution.

9. *Surinam.* Dutch Guiana, or Surinam, is the most flourishing of the colonies of Guiana. The part occupied by the Dutch lies along the coast, and the industry of that persevering people has drained the unhealthy marshes, and cut several navigable canals in this quarter. The population of the colony is about 60,000, mostly slaves. In the interior, beside the independent Indians, there are 3 independent establishments of Maroons, or runaway slaves, who were for a long time at war with the whites ; but in 1809, the latter having concluded a treaty of peace with them, recognising their independence, they have since been on amicable terms with each other. *Paramaribo*, the capital, stands on the Surinam, about 25 miles from its mouth. It is well built and prettily laid out, with a good harbor and an extensive commerce. The streets are lined with orange, lemon, and tamarind trees, and the houses are generally neat and surrounded by gardens. Population, 20,000. One of its suburbs, *Savanna*, is entirely inhabited by Jews, who have a synagogue here.

10. *Demerara and Berbice.* English Guiana consists of the two colonies of Demerara with Essequibo, and Berbice. The former has a population of 74,922, including 71,916 free blacks. *Georgetown*, formerly Stabroek, the capital, is a flourishing place, with 10,000 inhabitants. Berbice comprises 21,580 inhabitants, of whom 21,010 are free blacks. *New Amsterdam*, the capital, is a small town.

11. *Agriculture and Commerce.* The cultivated tracts are covered with sugar, cotton, coffee, and indigo plantations, and the exports chiefly consist of those articles. In some places the soil is so exuberant, that 30 crops of rice may be raised in succession.

12. *Inhabitants.* This extensive country, being divided between the English, French, and Dutch, contains more than the usual varieties of people. There are Indians and negroes. The savage tribes are indolent. The Dutch, with their usual perseverance, have converted a marsh infested with reptiles, into a fruitful and cheerful country. The common diseases are fevers; the climate is humid, and in expeditions against the Indians, the soldiers have sometimes been compelled to march in water to their breasts. There are several petty States of revolted negroes in the interior, and many savage tribes of Indians.

Scene in Demerara.

CHAPTER LXVIII. BRAZIL.

PHYSICAL GEOGRAPHY.

1. *Boundaries and Extent.* Brazil is bounded N. by New Granada, Venezuela, and Guiana; E. by the Atlantic Ocean; S. by the ocean, Uruguay, and Paraguay; and W. by Paraguay, Bolivia, Peru, and The Equator. It extends from 4° N. lat. to 33° S. lat., and from 35° to 73° W. long., having an area of 3,000,000 square miles, and a population of 5,000,000.

2. *Mountains.* This extensive region is traversed by several distinct chains of mountains, chiefly in the eastern and northern provinces. The most easterly chain, called the *Serra do Mar*, or Maritime Range, stretches from 16° to 30° S. lat., in a direction parallel to the coast. The highest summits are *Arasoiaba*, near San Paulo, 4,160 feet high; and *Tingua*, near Rio Janeiro, 3,600 feet high. Further west, lies the *Serra do Espinhaço*, extending from the San Francisco in 10°, to the Uruguay in 28° S. lat., and separating the confluents of the former from the rivers which flow easterly into the Atlantic. Its loftiest summits are in the province of Minas Geraes, between 18° and 21° S. lat.; among them are *Mount Itacolumi*, near Villa Rica, 6,175, and *Serra do Frio*, near Villa do Principe, 6,000 feet high. A third chain, the *Serra dos Vertentes*, separates the confluents of the Amazon, the Tocantin, and the Parnahiba,

from those of the San Francisco, the Paraguay, and the Parana. None of its summits reach to a great elevation.

3. ***Rivers.*** The ***Marañon***, or ***Amazon***, is the largest river in the world, both in regard to the length of its course, which is upwards of 4,000 miles, and its volume of water. It rises in the Andes of Bolivia, under the name of the Paro or Ucayali, and flowing northerly through Peru into Quito, receives the waters of the ***Tunguraguay***, which descends from the Andes of Peru and Quito; thence it runs in an easterly direction across the continent, emptying the accumulated waters of its 200 tributaries into the ocean, under the equator, by a mouth 175 miles wide. The tide is perceptible at the distance of 600 miles from the sea, and the river is navigable several times that distance for large ships. The principal tributaries from the south, are the ***Javary***, ***Jutay***, ***Jurua***, and ***Madeira***, which rise in the lofty regions of Bolivia, and the ***Topayos*** and ***Xingu***, which have their whole course in Brazil. From the north, it receives the ***Caqueta*** or ***Yapura***, the ***Iça*** or ***Putumayo***, and the ***Negro***, the largest of its confluents. The ***Cassiquiare***, a branch of the Negro, is an arm of the Orinoco, and presents the singular spectacle of one great river sending off a part of its waters into the basin of another. The Amazon drains an area of upwards of 2,000,000 of square miles.

The other principal rivers are the ***Para***, formed by the junction of the two great streams, the Tocantin and the Araguaya; the ***San Francisco***, and the ***Parnahiba***, which flow into the Atlantic Ocean.

4. ***Plain.*** The whole central part of South America, comprised within the Andes of Bolivia, Peru, and New Grenada, the Parima Mountains in Venezuela, and the Serra dos Vertentes of Brazil, including nearly the whole of the latter country, the northern part of Bolivia, the eastern part of Peru, and the southeastern districts of New Grenada, forms a vast plain, whose area exceeds 3,000,000 of square miles. It is covered with a luxuriant and gigantic vegetation, to which the hot and humid climate gives an astonishing vigor. The immense and impenetrable forests and mighty streams of this great plain, swarm with animal life in all its forms; ferocious beasts of prey, huge serpents, alligators, troops of monkeys, flocks of gaudily colored and loquacious birds, and clouds of insects, are here yet undisturbed by the arts of man.

5. ***Islands.*** At the mouth of the Amazon, lies the ***Marajo*** or ***Joannes***, belonging to Brazil; it is little more than a vast swamp, 150 miles in length, by 110 in breadth. About 70 leagues northeast of Cape St. Roque, is the barren island of ***Fernando de Noronha***, which has become known from its being used as a place of confinement for transported convicts.

6. ***Lakes.*** Several lakes are found in various parts of Brazil, but none by any means commensurate with the magnitude of the country. The lake of ***Patos***, situated towards the southern extremity, is the largest; it is 150 miles in length, and about 35 at its greatest breadth. ***Lake Mirim*** lies south of Patos, and like it runs parallel to the coast for about 90 miles, being 25 in extreme breadth.

7. ***Climate.*** In the vicinity of the Maranon, and in the northern parts, great tropical heats prevail; but these are considerably tempered by the excessive humidity of the atmosphere and the copious dews. In the southern parts, the climate is mild and temperate, and frequently cold. The west wind, passing over vast marshy forests, is found to be unhealthy in the interior parts. From March to August is the rainy season upon the coast. During the rest of the year, there is almost constant dry weather, the wind blowing from the north with little interruption.

8. ***Soil and Natural Productions.*** The soil is very fertile in a large portion of this country. The forests produce trees of a great variety, and of a remarkable size, suited for ship-building and other purposes. They are of a remarkably rapid growth. There are, besides, lighter species of wood, similar to fir, not to speak of logwood, mahogany, and an infinity of ornamental and dyeing woods. There are three kinds of ***Brazil-wood***, which is an important article of export. Melons, bananas, lemons, guavas, and oranges, grow along the coast; and aromatic and medicinal plants are very abundant. The forests of Brazil are noted for the gigantic growth and great variety of the trees, the profusion and beauty of the flowering shrubs, hanging under a load of blossoms, the strange shapes and enormous strength and size of the creepers and parasitic plants, and the clouds of gayly-colored birds and splendid insects, that everywhere abound. The silk cotton tree (*Bombax*), armed with strong thorns, spreads its fingered leaves in light and airy masses; the luxuriant *lecythis*, with its singular fruit resembling a pitcher, shoots out numerous branches profusely covered with foliage; the *jacaranda*, so well known, and so extensively employed as an ornamental material for furniture, under the name of *rosewood*, attracts

the eye by the lightness of its doubly-feathered leaves and its large golden-colored flowers; the lofty trumpet-tree (*Cecropia peltata*) rises with its smooth, gray stem, and spreads out at top into verticillate branches, bearing at their extremities large tufts of silvery-white leaves. Here and there the dark crown of the Brazilian pine (*Araucaria imbricata*), among the lighter green, appears as a stranger among the natives of the tropics; while the towering stems of the palms, with their waving crowns, are an incomparable ornament to the forests; the manicot palm and the charita, the cocoa palm (*Cocos nucifera*), from the cairo or outer part of whose fruit ropes of great strength are made; the piacaba palm (*Attalea funiferea*), whose leaves are an excellent substitute for hemp, are some of this latter family. The cacao (*theobroma*), or chocolate tree, from the kernel of which chocolate is made, seems to be an aboriginal native of Brazil, although it is extensively cultivated in other countries. The Brazil-wood of commerce (*Cæsalpinia Brasiliensis*); the soap trees, with their shining leaves; the slender Barbadoes cedar; the tapia, or garlic pear-tree; the *Bertholletia excelsa*, producing the delicious Brazil nut, from 15 to 20 kernels of which are enclosed in a thick, outer rind; the *copaifera*, yielding the balsam copaiva; the cannon-ball tree (*Couroupita Guianensis*), remarkable for the size and beauty of its crimson blossoms, and its enormous fruits, the husks of which so closely resemble a cannon-ball, that one might imagine a company of artillery had bivouaced under its shade, a resemblance heightened by the loud noise caused by their bursting; the cow tree (*Galactodendron utile*), yielding a wholesome and palatable vegetable milk; the arnotta (*Bixa orellana*), much used in this country, under the name of *otter*, for coloring cheese; are a few of the innumerable natives of the Brazilian forests. The *capsicum annuum*, yielding the cayenne pepper; the *quassia amara*, furnishing a valuable bitter drug; the pungent and odoriferous vanilla (*V. aromatica*); the bejuco, a powerful preservative from the effects attending the bites of poisonous reptiles; the ipecacuanha (*Cephœlis ipecacuanha*), whose root is an invaluable drug; the Tonquin bean (*Dipterix odorata*), much prized for its delicate, aromatic seed; the Quinado Rio (*Coutarea speciosa*), and the carqueja (*Baccharis genestelloides*), valuable for their anti-febrile qualities, the sarsaparilla, noted for its various virtues, are among the economical plants. To complete this imperfect notice of a Brazilian wilderness, we may add, from the account of an eyewitness the following sketch of its animal life: "Among the branches, monkeys of every description gambol and spring from tree to tree by means of the bejuco, which has obtained from this circumstance, its Indian name of monkey's ladder. Parrots and macaws, with toucans and other birds of beautiful plumage, complete this splendid picture, and fill the air with discordant screams, to which the metallic note of the *darra* or bell-bird, responds at measured intervals, now sounding close to the ear, and now dying away in the distance. Large and small-winged butterflies sport above the waters. Up the small creeks, which are completely embowered by magnificent evergreens, are seen pelicans, spoon-bills, and garzons or gigantic cranes, all busily employed in fishing. When to this is added the occasional appearance of that tyrant of the stream, the alligator, floating in conscious superiority among the bulky manatis and the more agile toninos, which are incessantly rising and blowing in shoals, the scene may be somewhat imagined, but cannot be adequately described."

8. *Minerals.* Gold and diamonds have been the substances for which Brazil has been mostly famed. There are extensive gold mines in the country, which have not been worked. Considerable quantities of gold have been taken from the beds of rivers. It is generally found in small grains, which are mixed with pebbles and gravel. The gravel is taken up in bowls and washed by hand. A fifth part of the gold obtained is set aside as the emperor's due. The quantity obtained annually in Brazil, is estimated at about 5,000,000 dollars. The principal diamond district is that of Serro do Frio, or the cold mountains, which are situated on the highest ridge of that range, which runs nearly parallel to the coast of Brazil, and attains its greatest height about 300 miles distant from the shore.[*] The largest and most valuable diamond

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The diamond-works are in the vicinity of Tejuco, a town containing 6,000 inhabitants, who are chiefly indebted to them for support. The principal establishment is situated on the river Jijitonhonha, a tributary of the Rio Grande. There are others situated on the river Velho, a branch of the Francisco, and on the Rio Pardo, as well as several other small streams belonging to this elevated tract. The Rio Pardo, though small and insignificant in its appearance, has produced as large a quantity of the most precious gems as any river in the district. The Jijitonhonha, which is formed by the junction of several streams, is about as broad as the Thames at Windsor, and is generally from 3 to 9 feet deep. At the time Mr. Mawe visited these works, they were working at a curve of the river, from which the stream was diverted by a canal cut across the tongue of land round which it winded, the former course of the river being stopped just below the head of the canal, by an embankment across its channel formed of several thousand bags of sand. The river being both wide and deep, and occasionally subject to overflow, the embankment must be made so strong as to resist the pressure of the water, admitting it to rise to the height of 4 or ever known was found in Brazil, weighing, in its rough state, 1,680 carats, or 14 oz. troy, which, according to the imaginary and conventional rule of valuation, at £2 sterling for the first carat, would be equal in value to 25,062,912 dollars. Topazes of different colors are also found. In the mining districts, the inhabitants suffer severely from a scarcity of salt, although it is extremely abundant in other parts of the country. The quantity necessary to cure an ox, is said to cost three times as much as the animal.

9. *Animals.* Among the native animals of Brazil, are the jaguar, the tapir, the sloth, and several species of apes. The birds are distinguished for the variety and splendor of their plumage. The huge cayman haunts the waters. Serpents are extremely numerous; no less than 29 kinds have been enumerated. Of all the numerous swarms of insects which infest this country, the ant is the most formidable and destructive. So dreadful are its ravages, that it is sometimes called the "King of Brazil." The rivers and seacoast are well stocked with fish. Whales are very numerous in the adjacent seas.

Brazilian River, Forest, and Animals.

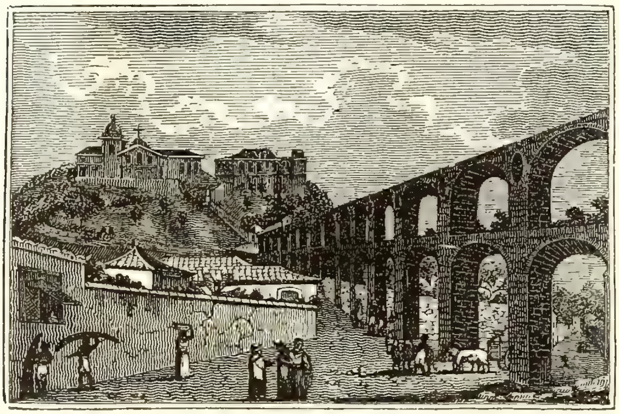
10. *Face of the Country.* Viewed from the sea, the country appears rugged and mountainous; but on a nearer approach, its appearance is highly beautiful and picturesque, clothed as it is with the most luxuriant vegetation, its hills covered with thick woods, and its valleys with a

5 feet. After this operation, the water is drained away from all the deeper parts of the channel, by means of large caissons, or chain-pumps, which are worked by a water-wheel. The channel being in this manner laid dry, the mud is carried away, and the cascalhao is dug up and removed to a convenient place for washing, which is done by negroes in a range of troughs, through which a stream of water is made to flow as occasion requires. At equal distances, are placed 3 high chairs for the overseers. After they are seated, the negroes enter the troughs, each provided with a rake of a peculiar form and short handle, with which he rakes into the trough about 50 or 80 pounds of cascalhao. The water being then let in upon it, the cascalhao is spread abroad, and continually raked up to the head of the trough, so as to be kept in constant motion. This operation is performed for about a quarter of an hour; the water then begins to run clearer, having washed the earthy particles away; the gravel-like matter is raked up to the head of the trough; after the current flows away quite clear, the largest stones are thrown out, and afterwards those of inferior size; then the whole is examined with great care for diamonds. When a negro finds one, he immediately stands upright and claps his hands, then extends them, holding the gem between his fore finger and thumb, whereupon an overseer receives it from him, and deposits it in a bowl suspended from the centre of the structure, half full of water. In this vessel all the diamonds found in the course of the day are placed; at the close of the work they are taken out and weighed by the principal officer, and are then registered in a book kept for that purpose. When a negro is so fortunate as to find a diamond of 17½ carats weight, much ceremony takes place; he is crowned with a wreath of flowers, and carried in procession to the administrator, who gives him his freedom by paying his owner for it. He also receives a present of new clothes, and is permitted to work on his own account. When a stone of 8 or 10 carats is found, the negro receives a couple of new shirts, a complete new suit, with a hat, and a handsome knife. For small stones of trivial amount, proportionate premiums are given. "During my stay at Tejuco," says Mawe, "a stone of 16½ carats was found; it was pleasing to see the anxious desire manifested by the officers, that it might prove heavy enough to entitle the poor negro to his freedom; and when, on being delivered and weighed, it proved only a caret short of the requisite weight, all seemed to sympathize in his disappointment." It is calculated, that only 2 or 3 stones of from 17 to 20 carats are found in the course of a year: and not once in 2 years is there found throughout all the diamond-washings a stone weighing 30 carats. During the five days in which Mr. Mawe was employed in visiting the works the number of diamonds found did not exceed 40.

verdure which never fades. Towards the interior, the land rises by gentle gradations, to the height of 6,000 feet above the level of the sea. A large part of the interior is overspread with an impenetrable forest.

POLITICAL GEOGRAPHY.

1. *Divisions.* Brazil is divided into 18 provinces,* including those on the north side of the Maranon.



Rio Janeiro.

2. *Towns.* *Rio Janeiro*, the metropolis of Brazil, stands on a plain on the west side of a bay close to the sea. It extends about 2 miles from east to west, and its northern side is enclosed by a chain of mountains, which merely leave space for a single street between their eastern base and the ocean. It has one of the finest harbors in America, and the city is handsomely built, and conveniently laid out, with broad, straight, and well-paved streets. The imperial and episcopal palaces, the mint, arsenals, cathedral, several of the churches, the theatre, several convents, and a splendid aqueduct, are among the principal ornaments of the city, which contains some fine squares and fountains. The commerce of Rio is flourishing and extensive, and is chiefly carried on by foreigners. There are several literary and scientific institutions and societies here. The environs are remarkable for beauty of scenery, fertility of soil, and for their delicious climate. Population of the city about 150,000, two thirds of which are colored persons; among the whites are French, Germans, English, Dutch, and Anglo-Americans. The houses are chiefly built of stone, and consist only of one story, with balconies. Many of the churches are handsome; and the interiors are generally decorated with ornaments of gold and diamonds. Water is brought from the neighboring hills by aqueducts, but in dry weather the supply is somewhat scanty. The harbor of Rio is formed by a narrow opening, about half a mile wide, in the ledge of rocks, which walls all this part of the coast. No sooner has the mariner entered through this strait than he is struck with one of the grandest spectacles in nature, a most magnificent bay, 100 miles in compass, surrounded with a vast ampitheatre of mountains, rising in every varied form, and covered with eternal verdure.

Bahia, or *San Salvador*, situated on the coast, stands on the beautiful Bay of All Saints, and has a harbor not inferior to that of Rio, which city it surpasses in the number and beauty of its public buildings. It is built on uneven ground, and is divided into the Upper and Lower City; the streets of the latter are irregular, narrow, and crooked, but those of the former are broad and handsome. The cathedral, governor's palace, archiepiscopal palace, several churches and convents, the exchange, &c., are the principal edifices. In commerce it is the rival of Rio, and in population it is little inferior, having about 120,000 inhabitants. The vicinity is the most populous and best cultivated part of Brazil.

Pernambuco, or *Recife*, is built partly upon an island, and partly upon the continent. Its harbor is convenient, and renders it an important commercial place. The literary institutions and the cathedral are at *Olinda*, a few miles distant, while the theatre, custom-house, navy-yard, &c., are at Recife. Population of the latter, 60,000; of Olinda, 7,000.

Maranham, situated on an island of the same name, is a pretty town, with a good harbor, and a flourishing commerce. There are several public buildings and literary institutions here Population, 28,000.

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* Para
Maranham
Siara
Rio Grande
Paraiba
Pernambuco
Seregipe del Rey
Bahia
Espirito
Rio de Janeiro
St. Paulo
St. Catharina
Matto Grosso
Piauhy
Minas Geraes
Goyas
Alagoas
San Pedro

Para or *Belem* is a well-built town on the river of the same name, and contains a cathedral, arsenal, governor's palace, and several higher institutions of education. It is the centre of an active and extensive commerce, and has a population of 20,000 souls.

Among the interior towns are *Villarica* or *Preto*, formerly a rich and populous city, but now much declined on account of the diminution in the production of the gold mines, to which it owed its prosperity; population, 9,000; *Tejuco*, the capital of the diamond district, containing 6,000 inhabitants, distinguished for their intelligence; *Villa do Principe*, remarkable for its rich gold washings, with 5,000 inhabitants.

3. *Agriculture.* In no country would agriculture yield greater returns to the industrious cultivator, but, unhappily, in no country is it more generally neglected. A passion for seeking gold and diamonds has nearly destroyed all relish for every other labor. Maize, beans, and cassava root are raised in considerable quantities. In many parts wheat and other European grains are reared. Coffee and sugar are cultivated to a great extent; as well as tobacco and cotton. Vanilla and sarsaparilla are obtained in abundance.

4. *Commerce.* The chief exports are gold, diamonds, sugar, cotton, coffee, rice, rum, Brazil and other woods, many of which are of the ornamental kinds. Several of these articles are royal monopolies. The imports are principally manufactured goods of every description. Manufactures scarcely exist in Brazil.

5. *Army and Navy.* The Brazilian army is composed of about 30,000 regulars and 50,000 militia. The navy already contains 30 vessels of all sizes.

6. *Population.* The population of Brazil is estimated at 5,000,000. Of this number 1,200,000 are whites, an equal number are mulattoes, 2,600,000 are slaves, and the rest are Indians, mixed breeds, and free blacks. The importation of slaves from Africa for the last 30 years, has been equal to an average of 50,000 per annum.

7. *Inhabitants.* The white inhabitants of Brazil are generally of Portuguese descent, and though there is little love to the mother country, the Empire bears the impress of its character. The races in Brazil are the Whites, Blacks, and Indians. At Rio de Janeiro there are 1,400 French, and half as many English. In other parts of the country there is a colony of Irish, another of Swiss, and there are 2 colonies of Germans. There are also many Indians. The classes are generally those of the South American States. All are masters or slaves. There is, however, a nobility, and Don Pedro ennobled several of the substantial and successful agriculturists.

Brazilians.

8. *Dress.* In the cities the dress is both showy and expensive, though less so than in Mexico. The ladies dress generally in black, and throw over the head, face, and breast, a black vei which, as it is worked with sprigs at regular distances, makes th face appear as though it were spotted with black patches. Silk stockings are always worn, and much attention is paid to the neat appearance of the feet. There is a kind of beetle, or bug of a very brilliant and glancing color, that is sometimes worn in the hair as an ornament. The better class dress somewhat after the European fashion; the poor have little clothing but the usual American cloak or blanket with a hole for the head; and the dress of the negroes is as slight as decency tolerates. The Paulistas, at balls, assume an elegant white-silk dress, covered with spangles and golden chains. At dinner parties, a calico jacket is furnished by the master of the house to each guest, as duly as a napkin.

9. *Manner of Building.* The cities of Brazil are well built and of massive materials, for there are no earthquakes, as on the opposite side of the continent. The houses are neat and kept in good order, though they are without uniformity of plan. Fires are rare, especially at Rio, where the walls are of granite, and the floors of jacaranda, or other hard wood, which resists fire like stone. In the country the better buildings, as well as farms, belong to the clergy, not because they are wealthy, but perhaps because their low salaries compel them to attend to agriculture. The following will answer for a description of one of the best of these buildings It has 5 large Venetian windows in front, ornamented with cornices and balconies; a spacious saloon within, and chambers leading from it, and a long corridor with apartments for servants. The ceiling is a net-work of split bamboo, painted and crossed with various devices. This is

a peculiarity of Brazilian houses. The dwellings, however, of the poorer class are but sheds of wattled bamboo, the poles of which are bound together with a tough, creeping plant called "Brazilian nails."

10. *Food and Drinks.* The Brazilians are a very temperate people in drinking, if not in eating; they use little spirits, and wine seldom but at feasts. There is, however, a ruinous kind of rum called caxas, drank by all who use intoxicating spirits. It is very destructive to health, though the blacks endure its effects better than the whites. From their tables the Brazilians exclude mutton; and when some English residents had it at their dinners, the native guests tasted it from politeness, but evidently with great antipathy. In some places where wood is scarce and mutton abundant, the latter is used as fuel and beef also, though this is said to be from the high tax on salt. The beef is very clumsily dressed and cut up by the butchers; it is also cut into strips and dried, in which state it looks like strips of leather. Pork, however, is the great food of the people, and it is plentiful and good. It is prepared in a peculiar manner; the butchers dexterously take out the bones and muscular flesh, leaving only the covering of fat, which is salted and folded up under the name of *toucinho.* The shops are full of it; and it is found in almost all articles of cookery. On the coast considerable fish is used, but it is not of a very good quality. The oysters are dangerous to strangers. The mullet is good and abounds, but during lent the dried cod is a general food. Though there is little wheat raised, the people are fastidious in the quality of bread, and great quantities of flour are imported from the United States. The bread at Rio is excellent, as no inferior flour is imported. Slaves, however, never taste it; the farinaceous food of the poor is the *feijão preto*, black beans, and mandioc meal. The former is always prepared with toucinho fat. Indian corn is often boiled whole, with sugar or treacle. Fruits are plentiful, and the quantity of pineapples is immense. It is surprising, that though there are thousands of herds of cattle, there is little milk used, and butter is in the country an unknown substance. Tea is seldom used in the interior, except as a medicine; the matte of Paraguay, or the Congonha, though it has few good qualities, is the universal substitute. Dr. Walsh relates, that when traveling he never saw a table-knife out of Rio, though all ate with the fork. The negroes had knives in their belts, but he supposes they were denied to the whites, by law or police.

11. *Diseases.* Some of the diseases of Brazil are peculiar, as the following description of a recent traveler will show. The diseases most prevalent and most severe are bilious remitting fevers, dysentery, and liver complaints; but Brazil is in general salubrious. Smallpox sometimes is very prevalent and dangerous. A disease called in the country bobas, is frequent; it resembles the *yaws* of the West Indies; the body swells and breaks out into ulcers. It is communicated by contact, but it is communicated also by small flies. The *chigre* is almost universal. It is a small sack found generally under the toes, containing minute eggs, which, if nskilfully removed, cause an incurable sore. This is supposed to be caused by a small insect. The prickly heat is very annoying to Europeans. At Rio there are many local swelings, like elephantiasis. The steps of the churches and convents are filled with the helpless, scarded slaves of this description.

12. *Traveling.* One of the evils of traveling is the currency in this region of gold. Copper is the only coin. The discount upon this is 40 per cent. and often more, and it is so cumbrous that if a traveler would go far, he must load a sumpter mule with his supplies. There is not, however, much robbery, though the country is sufficiently wild. There are no public conveyances for travelers, and all journeys are made by horses or mules. There are, however, many travelers on the roads of Brazil, and there are 4 kinds of resting-places for their accommodation. 1. A *rancho*, or large shed, open at the side, affording only shelter for mules, though often used by travelers. 2. A *venda*, or shop, where refreshments are sold; and attached to this is sometimes a *quarto*, or lodging-room, and more rarely a bed. 3. An *estalagem*, or inn; but this is very rare. 4. A *fazenda* or farm-house, which is sometimes an inn, though the master will sometimes entertain strangers from hospitality.

13. *Manners, Customs,* &c. The Brazilians are frank and cordial, though not highly polished. They are neat in their dress and persons, good-humored, and little disposed to be punctilious. In manners they are affable and unaffected. They are exemplary in their domestic relations, and are very kind to their children. The Brazilians are jealous of strangers, but it is from a political rather than a personal sentiment. They are not inhospitable, though they seldom invite strangers to their houses; in fact, their domestic economy is not upon the best foundation. The richest seldom have stores in the house, but send to a venda for the least

quantity, a pint of wine, and a few ounces of sugar or coffee. This, they say, is to remove temptation from their slaves. A traveler remarks, that this want of system is the most obvious trait in the Brazilians, and that he has seen "a slave returning from a venda with a china tureen full of charcoal under his arm, and a silver cup on his head, holding a few loose candles." The Brazilians are not humane masters, though kind in their family relations.*

In Brazil many customs exist that have been long disused in Portugal. Walsh relates, that he sometimes saw groups, such as are pictured in the old editions of Don Quixote and Gil Blas, in costumes long extinct in Europe. The barbers have musical instruments in their shops to amuse the customers, and their avocations are various ; they prepare tortoise-shell for combs, bleed, draw teeth, and exclusively mend silk stockings, vamping them very neatly. They are, besides, the musicians of the country. Assassinations are rare in Brazil, and duels are unknown. The spirit of the people is essentially democratic, and if this be properly directed to the founding of good institutions, no country in America will be more enviable than Brazil.

There is a department in the newspapers which discloses a national trait, and which affords much amusement. Under the head of "Particular Notices," one person is informed, that if he does not bring back the books he borrowed, his name will be made public ; another, that a particular person wants to speak with him, and warning him at his peril not to refuse ; a third, that his stagnant water is offensive, and if he does not throw it out, a neighbor will come and spill it in his parlor. Some curious notices also appear from ladies, as, "The Senhor, who was in the house of Luiza da Conceicao, in the street Livradia, No. 1, and who requested of the Senhora some paper to write upon, and having finished his letter, took from the drawer 4 milreis in gold, a bank note for 8 milreis, and a pair of silk stockings, is requested to restore the articles if he does not wish to see his name in public. The same favor is requested from the gentleman who carried away her fan, otherwise his name shall also appear." Connected with the newspapers are loose sheets called "Correspondencia," containing the most outrageous libels, for which the printer is in no peril unless he refuse to print the answers. The following is a specimen. "Retribution. — God being pleased to call from this world to a better, the Merchant Joao Pereira Borba, and he being a man of correct life, inserted the following clause in his will. I declare that I have ever been a neighbor of the Merchant Jose Loureno Dios, and for that reason I enjoin my heir not to demand from him a large debt which he contracted at my store by his constant and daily visits to the bung of a cask of Catalonian wine ; since it was from the vicinity of my store to the merchant's house, it would be injustice to receive money for that which renders him to this day so contemptible in the eyes of his fellow-citizens. One of the offended."

The original inhabitants or Indians, were never found living in large communities, and those of them that remain are more dispersed than the Indians of Mexico. In the annals of such a people there is little of interest, — they were barbarians in peace and cannibals in war. In the expedition of Vespucci, they ate one of his comrades ; and in the houses, the Portuguese found smoked and salted human flesh. The faces of these savages were as much distorted, as their dispositions were debased, having been bored into holes for the insertion of pieces of stone, some of which weighed 16 ounces. The females bored only the ears for ornaments of bone, or for small gourds, and the ears became so much elongated as to resemble at a distance those of a spaniel. The ears of the men were so much stretched, that, in going to battle, they tied them behind or tucked them up, to deprive the enemy of the advantage of a grasp. In some districts. there was greater civilization ; and Orellana saw good pottery, and paved roads with rows of fruit-trees on either side. Some of the tribes cultivated maize, and had tame parrots and domestic fowls. The early discoverers were treated with the classic fable of the Amazons, a nation of women governed by a woman. They were said to have several yearly interviews with the males of another nation, to whom they sent all the male children. The Amazons were represented as being very warlike. It seems, that whenever the early discoverers had the desire to believe anything wonderful, the natives readily furnished any amount of evidence or affirmation. The Jesuits, who generally obtained great influence over the savages, did not find the most satisfactory converts in Brazil. For a time, they were permitted to baptize the victims that were to be devoured ; but the permission was taken away, on the belief, that the flesh when sprinkled with water did not taste so well, and the Jesuits had no way to confer baptism but by stratagem, wetting with water the sleeve of the tunic, and laying it, as if without design, upon the head.

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* The following extract is from Walsh's Notices of Brazil. "Negroes every day are sacrificed. Not so much as delinquents punished for offences as victims offered up to the revenge or malice of their masters. A Portuguese merchant was pointed out to me at the Alfandega, as a remarkable example of this. He had ill-used a black so as greatly to exasperate him ; and as he was not his master, the slave was not in the same personal awe of him ; and he struck him on the face in a sudden fit of passion. The merchant said little about it at the time, but the inexpiable insult of receiving a blow from a negro slave rankled in his heart. He some time after applied to his master to sell him, but as he was a good negro, for whom he felt a regard, he declined, till he was offered a considerable sum, which he thought it not prudent to refuse. The money was immediately paid, and the negro transferred ; but the moment his new master obtained possession of him, he sent him to the calabouço, or place where slaves are punished. Here he obtained an order, as is usual, from the intendant of the police, for 300 or 400 lashes, or as many as he might think necessary ; and he had him flogged every day with such severity, that he gradually sunk under the punishment, and the merchant never thought his affront expiated, till he saw his dead body sent in a mat to the burying-ground of the Misericordia. Sometimes the gratification of these passions is too sweet to be intrusted to other hands, so they take it into their own, and of this several stories were told me ; I shall mention one. A family was about to remove to the country, and the master ordered one of his slaves to prepare the carriage. The slave, as often happens, had some attachment which he did not wish to leave, and neglected the orders ; and, when they were repeated in a more peremptory manner, he took an axe, and in a sudden fit of frenzy or despair, attempted to cut his master down. He was seized and disarmed, but he was not sent to the calabouço, where it was said his punishment would not be sufficiently severe ; so he was tied up in a cellar in the house, where his master every day inflicted the chastisement with his own hands, and never took him down till he was dead. This was universally known, and mentioned to me as rather a more salutary and effectual way of domestic punishment than sending to the calabouço. The master suffered nothing in public estimation, and was never called to any account for the murder. The wretched slave often anticipates the result by inflicting death upon himself in an extraordinary manner. They have a method of burying their tongue in their throat, in such a way as to produce suffocation. A friend of mine was passing through the carioca, when a slave was tied up and flogged. After a few lashes, he hung his head apparently lifeless, and when taken down he was actually dead, and his tongue found wedged in the œsophagus, so as completely to close the trachea."

Where cannibalism prevails, there is little hope that the sick and the aged will receive humane treatment. The sick were neglected, and left to die ; sometimes they were buried alive, in a sitting posture, as the dead also were. These are the annals of "savages so barbarous, that little sympathy could be felt for any sufferings which they endured."

The Indians are now scattered over the remote parts of the country, and are ferocious and murderous. Efforts have been made to civilize them, but without much success. Lands and an allowance of food were given to such as would abandon the savage life ; though some compulsory means were allowed to the agents, who were but too prone to abuse them for their own advantage, and the Indians were often held to labor for others. The *Aldeas* are posts of civilization, under the direction of a priest. In some of these, the moral restraints are not strictly enforced ; and in such, the condition of the Indian is little better than that of a brute. The hut in which he lives is but a roof of boughs supported by four posts ; a hammock, and a cup to mix his sole food, mandioc meal and water, are all his furniture ; and his only covering is a rag about the middle.

The principal tribes are the Puris, many of whom live in villages and aldeas. The Boticudos live near the eastern mountains of the Minas Geraes, and they receive their name from the botoque, or plug of wood, inserted in an incision of the under lip. The Tupis are a few wandering tribes near the Spanish provinces on the Uraguay ; and the Guacoros or Indian horsemen occupy the Paraguay for 100 leagues about the mountains of Albuquerque, and fight the Spaniards and Portuguese with spears and bows.

The first impression of a stranger at Rio Janeiro is, that he is at a place where the extremes of mankind are collected. Two thirds of the population are slaves ; and of these, many are so debased by servitude, that they seem as nearly allied to the baboon as to the human species. Except the partial covering of a rag worn as an apron, these are naked, and their skins have become so indurated by hardship and exposure, that they seem like the hides of beasts. Some are yoked to drays, others wear heavy chains upon the leg and neck, and thus encumbered carry huge burdens. Some are seen champing the green stalk of the sugar-cane, like cattle, or coiled up like dogs, and sleeping in the sun. Horses and mules are used only for pleasure or show, and the poor slaves look at their easy condition and gay trappings with envy. In the public square, the traveler may see the negro in higher employments, and mark how his capacities rise with his condition ; he may see a negro regiment, well armed and disciplined, capable of any evolution, and marching to the music of its own band, the composition of the sable leader. Numerous blacks are also seen as itinerant merchants, neat in their persons, and with a sense of decorum superior to that of whites in the same employment. Lastly, the negro may be seen in churches, not only kneeling by the side of his master before the altar, where all are equals, but officiating as a priest, instructing the whites in their duties, and administering to them the holy rites of religion. Many laws favorable to the slaves exist, but, as in the case of the Indians, they are evaded. A slave, after 10 years' servitude, is entitled to his freedom, and also when he is the parent of 10 children. Thirty-three holidays are allowed, and on these the slave may have the wages of his own labor, and he has by law the right of redeeming himself on paying the amount of his first cost. There were so many Africans imported before the expiration of the time that was to abolish the traffic, that, by a just reaction, the dealers were ruined; and slaves are now sold on a credit of 10 years. In 1829, upwards of 50,000 were imported into Rio alone.* They preserve the characteristics of their African nations, and the citizens from policy encourage dissensions among them, lest by union they should become too powerful. Obeah-men are less powerful than in the West Indies, but the native princes sometimes administer justice, and the Congoes elect a king. Divided as these poor people are, there is one tie, that of fellowship in the greatest sufferings, that is never broken. This is companionship in the slave-ship; and those who are brought over in the same prison, are brothers for life. The natives of Congo and Angola are the most esteemed, being gentle and strong. The Gaboons are more intractable, and numbers of them sometimes form a resolution to die at once. The slave-market, like the slave-ship, is a place where one may see the extremes of human cruelty and suffering, and behold man in his most hideous and most miserable state. The slaves to be sold are kept naked, and like cattle, in stalls. A crack of the whip brings one out to be shown, and he is made to leap about, and throw out his arms, to test his agility and strength of lungs.

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* Dr. Walsh gives the following description of the slave-market, &c. "Round the rooms are benches, on which the elder generally sit, and the middle is occupied by the younger, particularly females, who squat on the ground, stowed close together, with their hands and chins resting on their knees. Their only covering is a small girdle of crossbarred cotton tied round the waist. The first time I passed through this street, I stood at the bars of the window, looking through, when a *cigano* (a gypsy dealer) came and pressed me to enter. I was particularly attracted by a group of children, one of whom, a young girl, had something very pensive and engaging in her countenance. The cigano, observing me look at her, whipped her up with a long rod, and bade her with a rough voice to come forward. It was quite affecting to see the poor, timid, shrinking child, standing before me in a state the most helpless and forlorn, that ever a being like myself, with a reasonable mind and an immortal soul, could be reduced to. Some of these girls have remarkably sweet and engaging countenances. Notwithstanding their dusky hue, they look so modest, gentle, and sensible, that you would not for a moment hesitate to acknowledge, that they are endued with a like feeling and a common nature with your own daughters. The men were generally less interesting objects than the women; some were soot black, having a certain ferocity of aspect, that indicated strong and fierce passions, like men who are darkly brooding over some deep-felt wrongs, and meditating revenge. When any one was ordered, he came forward with a sullen indifference, threw his arms over his head, stamped with his feet, shouted to show the soundness of his lungs, ran up and down the room, and was treated exactly like a horse put through his paces at a repository; and when done, he was whipped to his stall.

"Many were lying stretched on the bare boards; and, among the rest, mothers with young children at their breasts, of which they seemed passionately fond. They were all doomed to remain on the spot, like sheep in a pen, till they were sold; they have no apartment to retire to, no bed to repose on, no covering to protect them; they sit naked all day, and lie naked all night on the bare boards or benches.

"Among the objects that attracted my attention in this place, were some young boys, who seemed to have formed a society together. I observed several times in passing by, that the same little group was collected near a barred window; they seemed very fond of each other, and their kindly feelings were never interrupted by peevishness; indeed the temperament of a negro child is generally so sound, that he is not affected by those little morbid sensations, which are the frequent cause of crossness and ill-temper in our children. I do not remember that I ever saw a young black fretful or out of humor. I sometimes brought cakes and fruit in my pocket, and handed them in to the group. It was quite delightful to observe the generous and disinterested manner in which they distributed them. There was no scrambling with one another; no selfish reservation to themselves. The child to whom I happened to give them, took them so gently, looked so thankfully, and distributed them so generously, that I could not help thinking, that God had compensated their dusky hue by a more than usual human portion of amiable qualities.

"Nothing is more absurd than to say, that the Africans are happy, or reconciled to slavery in America. They seem to have as keen a sense of bondage, and to repine as bitterly at their lot, as any white men in the same state in Africa; indeed, if we might judge from the effects, still more. The harbor is constantly covered with the bodies of blacks, on whom no marks of violence are found, and who are known to have thrown themselves in, to escape from an insupportable life. I have seen them, myself, left by the tide on the strand, and some lying weltering just under our windows. We were eyewitnesses to a very striking and melancholy fact of this kind. One evening, some policemen were conducting a woman to the *calabouço*, along the road leading from Catete. Just when they came opposite our door where there was an open descent to the strand, the woman suddenly rushed down the rocks and cast herself into the sea. The place in which she fell was too shallow to drown her; so after lying on her face a moment, she again raised herself, and rushing forward into deeper water, she sunk and disappeared. The policemen made no attempt to save her, but Mr. Abercrombie ordered some of the blacks of our house to follow her. They immediately did so, brought her up apparently dead and carried her into our hall. The negroes supposing her to be dead, threw her down on the bare stones, just as they would be treated themselves, and she lay there like any other worthless and despised object; but on examining the poor creature, we had reason to suppose it still possible to restore suspended animation; a bed was therefore brought, on which she was laid, divested of her wet and tattered garments, and wrapped in a warm blanket; friction and other means were resorted to, and after being persevered in for some time, she showed symptoms of returning animation. She was seized with convulsions succeeded by a violent shuddering, when she fell into a slumber, from which she awoke in a sensible state. She had been employed in washing, which she willingly performed, but her master treated her with the greatest cruelty and inhumanity, and in proof she showed her arms and side, which were greatly swelled and inflamed from the effect of blows received a few days before. She could endure it no longer, but fled to the wood. Her master immediately gave 16 milreis to the *capitao do mato* (whose office it is to take fugitive slaves); she was pursued and overtaken, and was on her way back, when she conceived such a horror at again returning to encounter the brutality she had before experienced, that she determined not to be brought home alive. She appeared very grateful for the kindness with which she was treated, so different from anything she had experienced in Brazil before; and proposed to do any work with alacrity to which she was put; but when we spoke of her returning to her master, she expressed a degree of horror in her looks and manner, that amounted to distraction, and seemed to think, that she was little indebted to those who saved her life, if she was again to be given up to that suffering, than which loss of life was more tolerable."

It is, however, the great blessing shed in the bitter cup of the African, that his temperament is cheerful, and his sense of enjoyment at his dances and on his holidays, keen. The negroes have several rude instruments of music, as a clumsy guitar, made of a gourd-shell, and even a ruder kind of drum. Some of their music is plaintive and not unpleasing. The first tap of the drum brings together all the unemployed blacks in a neighborhood. They come bounding in, and dance with an hilarity little short of frenzy. On Sunday evening, they assemble in great numbers to dance; though at the Faciendas, Saturday night is the season for balls. But no time or place comes amiss. In the streets, when four or five meet, they generally follow the ruling passion, and dance. They drink much caxas, an intoxicating rum, and their little gains always go for this. Many of them are baptized; in the interior, the usual salutation of such is "Jesu Christo," and the answer, "por sempre." All negroes may enter a church, and kneel promiscuously with the whites. There are many free blacks, and these may have slaves. The slaves are often compelled to support themselves, and to return at night a certain sum to their owners; and if they fail to do this, they are beaten. Among the slaves are great numbers with skins so fair, that they are not to be distinguished from whites.

14. *Amusements.* The Brazilians, though a cheerful race, have few amusements. At Rio, the opera is the principal one, and is supported partly by lotteries, which are perpetual. The people have a taste for music, and are fond of dancing. But the most general amusement is that of sedentary games of chance, in which the shopkeepers are sometimes so much interested, that they will not leave it to serve a customer. At some seasons, there are many sports.*

15. *Education.* It was not until the present century, that a printing-press was allowed in the country; and other facilities for diffusing knowledge were much limited. There are now 13 periodicals universally circulated, published in one city of a country where it was lately unlawful to print a leaf. Several books have also been printed. There are few countries where education is more generally diffused among the rising generation, especially in the capital; yet it is still the custom to advertise a house to be let by pasting up a piece of blank paper, the remnant of a custom that obtained, like the origin of seals in Europe, when few could write. It must be admitted, that the knowledge of the elder Brazilians is not very extensive or correct, especially in geography; a map of any country, even of their own, is seldom seen in their houses, and it has always been with them a general belief, that Spain, France, and England are inconsiderable portions of Europe, and tributary to Portugal. A better state is, however, arising from the liberal appropriations made for education. At Rio, there are two Lancasterian schools, free to all of any color, but the slaves; and nine more are to be opened in different parishes Similar schools are established in the Minas Geraes. Primary schools are in almost every street in Rio, with the inscription, that grammar, arithmetic, French, and Portuguese are taught. In these schools, the masters receive $ 300 a year, and in higher schools, 500. The facility of admission to schools, has filled the army, navy, and church with men from the

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* At Lent, the streets were glowing with green and yellow hues, as vivid and general as the purple on the hills. This proceeded from vast quantities of balls of colored wax, which filled the shops and large baskets before the doors, of the shape and size of eggs, containing pure or scented water. I could not conceive what they were intended for, till I learned by experience in a few days. The Brazilians, like all people of a tropical climate and constitution, when the moment of enjoyment comes, deliver themselves up to it with unrestrained hilarity. This is indulged particularly during the intruso, a jubilee which precedes Lent, and the eggs were the principal pastime. A friend brought me to pay a visit, and the first salutation we received was a shower of green and yellow eggs pelted in our faces, by all the fair females of the family. We were then invited to the balconies of the windows, and saw all those in the street, filled with girls peeping out and watching the approach of some victim. When any appeared, he was assailed in all directions, and ran off bedewed with water, and his hat and coat covered with green and yellow egg-shells. If he stopped for a moment, when he saw nobody, and took off his hat to remove the wet, some laughing girl, perched in an upper window, was ready with a basin of water, which came on him in a sheet; if he ran to the opposite side to avoid it, he received another; if he took the middle of the narrow street, he probably received both together. Below, in the shops and behind hall doors, crowds of men stood with large syringes and gamellas, which they ejected in a continued circuit in his face and bosom, so that, by the time he arrived at the end of the street, he was as completely drenched as if he were dragged through the bay. Should he, like Swift's passenger, "fly, invoke the gods, and turning stop" to scold, he was saluted by clapping of hands and shouts of laughter from a thousand merry faces, from all the windows round him. Sometimes we saw persons thrown down and drenched with water and pelted with eggs almost to suffocation, and sometimes whole baskets of flour were discharged on his wet body till he became crusted all over blacks and mulattoes look exceedingly grotesque when ornamented in this way. The Brazilian girls are naturally pensive-looking and retiring; but at this season, they change their character, and their gravity and timidity are for three days lost in inextinguishable merriment.

humblest grades of life. In the Minas Geraes there is a great seminary for ecclesiastical education, and a university for the laity at St. Paul's, and another at Pernambuco, besides which every town has its primary schools, and, generally, at least one professor in Latin. At Rio there is a military academy, where the students attend lectures on military subjects, for seven years, and at the naval academy they embark at the end of three years. There is a medical and surgical academy, where degrees are given at the end of five years, and to these institutions the usual professorships are annexed. The hospital of the Misericordia is the great school for medical students ; dissections, however, are not frequent, notwithstanding the abundance of subjects, nor are post-mortem examinations. There are two libraries to which the public have free access ; one of which, the Imperial Library, has 60,000 volumes, and perhaps the most complete collection of bibles in the world.

16. *Arts*, &c. There is at Rio an academy of Fine Arts, where instructions are given in painting, sculpture, and architecture. The arts are at a low state, and, though the churches are richly adorned, it is in puerile taste.

17. ***Religion.*** The religion is almost universally the Catholic. It was provided, however, by treaty with England, that the English at Rio might erect a church, without a bell, and after the manner of a private dwelling. The constitutional charter confirms the same privilege under some restrictions to all denominations. Though Brazil is a Catholic country, there are few convents for nuns, and only 2 at Rio, 1 of which has but 21 sisters. The clergy are supported by the government, which formerly made a compositon with the court of Rome, and on release of the payment of tithes contracted to give a stipend of 200 dollars to the ecclesiastics. This at present is an insufficient salary, and the clergy would live in poverty, were not many of them skilful cultivators. This may be the reason why so many blacks are in orders. Had the tithes been retained, the clergy would now be the most opulent class. There is 1 archbishop and 6 bishops, who are paid on the same economical scale, and their best support comes from fees in the ecclesiastical tribunals. The regular clergy are not numerous ; the richest order is that of the Benedictines and the ancient Carmelites ; the others make vows of poverty. The wealth of the rich orders, however, is in peril, if not already confiscated to the use of the State. The Benedictines have more than 700 houses in Rio alone, and at their convents so much food and alms are distributed that there is little mendicity in the streets, and a beggar is seldom seen. Besides the regular orders there are brotherhoods of trades-people, and others who hold large funds, to buy masses, found hospitals, and bury the dead. The benefits they confer in charity are immense, and as there are no laws to restrain mortmain, much money is left to them by will.

The observance of the Sabbath is exemplary in Brazil, though it has none of the display, that is made on the saints' holidays. Public or private devotion is attended to by all classes of people, though the shops are open in the afternoon.

Marriages are contracted at early years, and disparity of ages seems to be no obstacle, as it is not uncommon to see a man of 60 married to a girl of 16. The burials are peculiar ; those of infants are celebrated with rejoicing, for, as it is thought that such are translated at once into a blissful life, it is held improper to mourn for them. All funerals are ostentatious, for the Brazilians are as fond as the Chinese of splendid funerals. Rich coffins are let out for hire ; the body is carried in them to the grave, where it is deposited naked, or wrapped in a cloth. Few relatives attend the interment ; and when they do, they often behave with levity. At Rio the bodies of the poor are laid on a platform till enough are collected, when the service is performed over them, and all are thrown into a trench, and, for closer stowage, the feet of one are laid by the head of another. Negroes are carted through the streets with scarcely the covering of a mat. People of higher classes are sometimes buried under the pavement of a church, if it can be called burial ; the stones are removed, and a small cavity made, often insufficient to hold the body, which is pounded down to a mass, and the stones are often replaced over it with some parts of the corpse in sight. Anatomical students may take the bodies of slaves and some others without fear of penalty or prejudice. In fact, the people are to a great degree careless of the disposal of their deceased friends, though their bones are sometimes kept as relics. There is a festival in commemoration of the dead generally, in the great church of Francisco de Paula. In a large garden surrounded by cloisters, is an immense number of cases of different shape and size, some no larger than tea chests ; all have locks and inscriptions, such as, "Pray for our brother Thomas ;" "Here lie the bones of our brother Stephen," and "here dry the bones of brother Paulo " These boxes contain the bones only, the flesh having been consumed in quicklime.

The Brazilians are much inclined to make vows, in danger, and often impose on themselves strange penalties. A fisherman in Rio made a vow, that if he should escape a present peril, he would marry the first unengaged female he should meet. He performed his vow, though he found a wife little to his taste or advantage. Though this people are less attached than the Spaniards to relics, they yet believe at Rio, that they have the descendant of the cock which crowed when Peter denied his Master. Dr. Walsh was favored with a sight of him, and describes him as an ungainly bird of great size, and with a sort of croak in his crowing, that was quite monitory.

Among the strange creeds is that of the Sebastianists, who believe that king Sebastian, who lost his army in 1577, at the battle of Alcazar, and who was, they believe, carried away by Providence and concealed in a desert, where he is still alive, will reassume the throne of his ancestors. On this subject there are many oracles. There are 2,000 Sebastianists in Brazil, and some of them will enter into bonds to pay, or remit payment ol money, if the king should fail to appear by a certain time.

Though the laws are often contradictory, and the forms of proceeding not the best, yet a greater evil is, that the salaries of the judges are insufficient to secure them from the temptation of a bribe, so that the suitor who pays the most, too often has the strongest case. In fact, the judges with a stipend of 300 milreis, spend about 10,000, and bribes are administered without concealment or delicacy. The executions are similar to those in Spain.

18. *History*. Brazil was formerly a Portuguese colony, — subsequently it was raised to the dignity of a kingdom under the same sovereign with Portugal, and in 1825 it was declared independent of Portugal, and the sovereignty was transferred by the king to his son Don Pedro, who was acknowledged Emperor under the title of Pedro the First. Various grievances, real or alleged, proved a source of misunderstanding betwixt the Emperor and his subjects ; and on the 7th of April, 1831, Don Pedro abdicated in favor of his son, a child five years of age ; and a regency was nominated by the Brazilians. This regency at present continues to exercise the sovereign authority, but the government is said to be tending towards a republic

CHAPTER LXIX. ATLANTIC OCEAN.

1. *Situation*. The Atlantic Ocean separates America from Europe and Africa, and extends from the Arctic Ocean to an imaginary line drawn from Cape Horn to the Cape of Good Hope. The southern part of this great mass of water is called by some writers the Ethiopic Ocean.

2. *Extent*. In its narrowest part, between Europe and Greenland, it is upwards of 1,000 miles wide, and opening thence towards the south, it becomes, in the latitude of the tropic of Cancer, about 4,000 miles in width. Stretching north and south from 72° N. to 55° S. latitude, it covers, with its bays and gulfs, about one seventh of the earth's surface.

3. *Depth*. Its mean depth has been estimated at about 3,000 feet ; the greatest depth ever sounded is 7,200 feet, but it is probable, that there are deep cavities or valleys in the bed of the ocean, corresponding in depression to the elevation of the mountains on the surface of the earth.

4. *Currents*. There are several remarkable currents in the Atlantic Ocean, setting with more or less rapidity and strength in particular directions, like great rivers in the midst of the sea ;

(1.) The *South Atlantic Current*, coming round the Cape of Good Hope, flows northerly along the western coast of Africa, to the equinoctial line in the Gulf of Guinea, where meeting another current from the north, and turned by the Guinea coast, it takes a westerly direction, and becomes the head of a still more powerful stream, called the Equatorial Current;

(2.) The *Equatorial Current* flows from east to west, from the Bight of Biafra to the Antilles, in a course of about 4,600 miles. Its rapidity varies from 20 to 50 miles in 24 hours. Off Cape St. Roque, it divides into two streams, one of which sets along the coast of South America towards Cape Horn ;

(3.) The other stream, setting towards the Mosquito and Honduras coasts, passes into the Gulf of Mexico by the Cuba channel, and, after making the circuit of that bay, pours itself with great velocity through the Florida channel, into the Atlantic ocean. Proceeding northerly along the coast of the United States, its velocity gradually diminishes, and its breadth enlarges ; opposite Cape Henlopen, it is about 150 miles wide, with a current of from 3 to 5 miles an hour. To the east of Boston, in the meridian of Halifax, it is about 275 miles broad ; turning to the east, its western margin touches the Great Bank of Newfoundland, whence it flows towards the Azores, in the meridian of which it is about 550 miles broad. This great stream is called the *Gulf Stream*, and is remarkable for the superior warmth of its waters to those of the ocean.

5. *Vegetation*. In some parts of the ocean the surface is covered with extensive patches of floating sea-weed, which are so dense and large as to impede the passage of ships. Two great fields of this kind are known in the Atlantic ocean ; one of which is between 25° and 36° N. lat., and 30° and 32° W. long. ; and the other between latitudes 22° and 26° N., and longitudes 70° and 72° W. Other species of fucus or sea-weed, the stems of which attain to the enormous length of 700 or 800 feet, are attached to submarine rocks. These plants are useful as manure, and the ashes of the species called rockweed, are known in commerce under the name of kelp. One species of sea-weed is also eaten, boiled or dressed, as a salad.

6. *Islands*. The principal islands on the western coasts of the Atlantic, as Iceland, Greenland, Newfoundland, and the West India islands, and also the islands of Great Britain and Ireland, on the eastern coast, are separately described. Besides these, the most important are the Azores, the Canaries, the Madeiras, the Cape de Verde Island, St. Helena, Ascension, and Tristan da Cunha, which are described under the heads of Europe and Africa.

MISCELLANEOUS NOTES.

The *South Atlantic* contains few islands of any size, and no inlets of any consequence ; but the *North Atlantic* abounds in large islands, and in deep and numerous inland seas, which penetrate far on each side into both the old and new worlds, and have fitted it for the most extensive commerce on the globe. On its eastern shores it receives few large rivers except the Niger ; but on the west it receives the Plata, Orinoco, Amazon, Mississippi, and St. Lawrence, — the largest rivers on the face of the earth.

The *usual color* which sea-water exhibits is a bluish green, of various shades. Some main tain, that this is its true and proper color ; others, that it is an optical illusion, occasioned by the greater refrangibility of the blue rays of light, — opinions which may both be true to a certain extent. The ocean seems often to assume various other colors ; some of them no doubt real, but as often illusory. Among the more general sources of deception, may be reckoned the aspect of the sky ; thus, an apparently dark-colored sea is a common prognostic of an approaching storm ; not that the water then is really blacker than usual, but the dark color of the clouds indistinctly seen in or reflected from the waves, is mistaken for the color of the sea itself.

The *variety of colors* in the sea may probably arise from animal and vegetable matters diffused through the waters in a putrescent state, and communicating various tints. The yellow and bright green shades seem to be owing to living marine vegetables, which grow at the bottom, stretch their fibres through the water, or spread over the surface.

The *phosphorescence of the sea* is a common but very remarkable phenomenon, concerning the cause of which authors are not agreed. But most probably, as Newton conjectured, it proceeds from a variety of causes. It has been ascribed to luminous animals and to the phosphorescence of semiputrescent matter diffused through the ocean. It is well known, that various fishes and other marine animals, emit light, which does not in every instance appear to be voluntary, or to depend on the vital principle, as, in some of them, it continues, and perhaps increases, after death ; but motion seems to be either a principal cause, or at least an exciting one ; for this light more rarely occurs, and is much fainter, in still water, whilst it becomes more and more brilliant as the motion increases. It is also more abundant immediately before and during storms.

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Abbreviations: — b. bay, — c. cape, — f. falls, — g. gulf, — i. island, — ids. islands, — l. lake, — m. mountain, — mts. mountains, — o. ocean, — s. sea, — r. river, — str. strait, — sd. sound.

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